THE

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JOURNAL OF MEDICAL SCIENCE.

EDITED BY

MESSRS. J. GRANT AND J. T. PEARSON.

Ἰητρὸς γὰρ ἀνὴρ πολλῶν ἀντάξιος ἄλλων.

Ilias Lib. xi. 514.

Corpus humanum, arte prorsus divina fabricatum, multis et miris fungitur muneribus; quorum alia ad res externas, alia ad seipsum tantum pertinent.—

Conspectus Medicinæ Theoreticæ.

Medicamenta bona recte adhibita salutem promittunt; et mala, vel male composita funesta multa adferunt, vel nil Ægrotantibus proficiunt.—

Pharmacopeia Edinensis.

VOL. I.

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To

THE RIGHT HON'BLE LORD WILLIAM CAVENDISH BENTINCK,

&c. &c. &c.

GOVERNOR GENERAL OF INDIA.

THIS FIRST ATTEMPT,

AT ESTABLISHING A MEDICAL PERIODICAL WORK

IN INDIA;

IS DEDICATED

WITH SENTIMENTS OF HIGH RESPECT

BY HIS MOST OBEDIENT

AND GRATEFUL SERVANTS,

THE EDITORS.

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THE INDIA

JOURNAL OF MEDICAL SCIENCE.

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Original Communications.

ON THE FEVER

That prevailed at Calcutta during the months of September, October, November, and December, 1833. *By* FREDERICK CORBYN, *Esq., Garrison Surgeon, Fort William.*

EPIDEMIC diseases are acknowledged to be intrinsically of more importance than other maladies. Besides possessing an adventitious interest from circumstances altogether singular and extraordinary, by which they are distinguished from every other disorder incidental to the human constitution: they become alarming and momentous from the greater number of persons they affect; their greater severity and more fatal consequences; the frequency with which they have recently appeared in the East, and with fearful violence spread to the most distant countries. The medical practitioner, anxious to discharge his duty in the cause of humanity, feels himself called upon to record his experience as to their cause, character, and treatment, and by developing every important fact, become the means of directing to their prevention and cure.

With this view of the duty I owe to my professional brethren, I do not hesitate to submit for their consideration the result of my experience on the Fever which has lately prevailed at the presidency.

In denominating this Fever Epidemic, I beg to state that my view of what is an Epidemic is the same as that taken by the celebrated Dr. Sims, who, in his Memoirs of the Medical Society of London, observes, that there are some grand classes of Epidemics which prevail every year, and which are produced by the various changes of the seasons. Thus Spring is accompanied by inflammatory diseases; Summer by complaints in the stomach and bowels; Autumn by catarrhs; and Winter by intermittents. These being obviously produced by the state of weather attendant upon them, other Epidemics are supposed analogous to them, and are according to universal consent obedient to the same rules.

The Epidemic in question assumed at first that character of Fever of which I have had some experience in the forest of Teraii, the jungles of Central India, and swamps of Arracan. It was preceded in most cases by general febrile phenomena assignable to no particular form or organ: when formed it was characterized by a violent pain in every part of the head; pains in the lower extremities; stretching of the whole length of the thighs and legs; pains in the small of the back; irritability of stomach; depression of spirits, and apprehension of death. In some dysenteric stools was a premonitory sign, attended in a few cases with a sense of sinking, which induced a belief that the disease was Cholera. In all there existed a sense of fulness, distension, and oppression at the scrobiculus cordis, accompanied by much anxiety. In some there was turgidity of the blood vessels of the eyes; and that singular expression of countenance which indicates mental aberration. The heat differed in many; in most there were exacerbations and remissions: in many the heat of skin was preceded by rigors, and terminated in cold sweats. The tongue was dry and parched, and a distressing complaint of thirst occurred in all. The pulse in many was feeble, rapid, and wiry; in more favorable cases full, and beating 120; the respiration quick and laborious. Some cases had that collapse of countenance which many would conclude was Choleric. The whole system, however, depicted extreme prostration and distress.

Such was the character of the disease in September. In October a manifest change took place. There were more distinct premonitory symptoms; such as complaining of langour and fatigue and inaptitude to the least exertion: the eyes lost their wonted animation, the face became sallow, bloated, and dejected, the pain in the head heavy and dull. There existed always a sense of nausea, and in most cases a distressing retching, but nothing was brought off the stomach; others experienced great difficulty to retain any thing on the stomach, or after from 20 to 30 minutes' retention the contents would be ejected. A want of sleep, or disturbed slumbers, or frightful dreams was a general complaint. The tongue was at first white; in some yellow; in others brown; and in many there was a tendency to blackness. The pulse would change suddenly, from being hard and full and become small, quick, and wiry; and in an hour or two full and hard again. Great heat in some cases followed rigors, terminating in moisture upon the skin. Towards the latter end of October, there were intermissions from 6 to 12 and 24 hours; the attack being suddenly ushered in by ague, followed by

excessive heat, and terminating in profuse perspiration.

Almost all my patients complained of deafness and an unpleasant sound in the ears, like the roar of distant cataracts. There was invariably a disposition to great debility; and a want of appetite as well as nausea of the stomach remained for several days after the disease was subduced.

Such is the history of the Fever which has prevailed during the last three months, and which continues to prevail in many parts of the presidency. In proceeding to trace the cause, we find, as invariably must be the case, opinion so variable and of so conflicting a nature as to leave this part of our enquiry in much obscurity. It has been assumed that the cause arose from the exhalations from the stagnant mass originating in the inundations which followed the gale in May last. The great objection to such a supposition is the distance of the inundated lowlands from Calcutta. Dr. McCulloch, however, has endeavoured to prove that malaria is more easily generated, and transported further than is commonly supposed; and that it is often present when unsuspected and neglected.

Althongh Dr. McCulloch is acknowledged to be a talented and experienced physician, he has like other men his wedded prejudices, in which opinion most of my readers, I have no doubt, will coincide when I mention that Dr. McCulloch affirms that all the Fevers of any moment which are not contagious are the effects of malaria, and that these two leading classes constitute the great mass of Fevers throughout the world. Those which arise from other causes he says are proportionably very small in number, and of very little moment compared with the others. I coincide in opinion that miasmatic exhalations from the low grounds of a rich alluvial country form a poisonous agent, the influence of which is determined to the mucous surface of the stomach and bowels on subjects liable to its noxious power, as well as producing dispositions to regular returns of febrile attacks; but I am not disposed to go to the length Dr. McCulloch has gone in laying it down as the only cause of Fever, besides that which he avers to proceed from contagion. The nature of miasmata has eluded research; but the circumstances under which they have been generated, have been ascertained with precision. From these it is concluded that they are a subtile and poisonous emission, in most instances exclusively from vegetable matter in various states of decay. Hence diseases, of which they are the cause, generally prevail in such situations as are most favorable to the production of miasmata, such as the vicinity of marshes and swamps, along the margins of rivers, lakes, and pools, in most alluvial soils or other lands occasionally inundated, and especially if newly cleared, with the stumps or trunks, or branches of trees left to rot. It is acknowledged, however, that miasmata never generate to any extent at less heat than 80° of Fahrenheit. Intense heat is required, as well for the free evolution as for the modifications of miasma. To disengage the exhalations, a limited degree of moisture is necessary. When, as in heavy or periodical rains, the water completely covers the surface of the earth, nothing baneful is permitted to escape, it is only on its subsidence that disease commences.

Now it is one striking fact with respect to this rainy season. The falls have been exceeding small, of short duration, and several days between, scarcely washing away the filth and dirt which had accumulated in various spots, and not doing more than wetting the roads about Calcutta, never even rendering those which are muddy impassable an hour after each fall.

With regard to the localities of Calcutta, I may mention that my patients resided in the Fort, at Coolie Bazar, Garden Reach, Kidderpore, Allipore, Circular Road, Entally, Colingah, Durrumtollah, Ranee Moody Gully, Chowringhee, and the Strand, which embraces the whole circle and centre of Calcutta. It is not to be supposed for a moment that malaria existed in all these places, unless the influence had its source from neglect of cleanliness in adjacent spots.

The Fever, however, was most virulent at Garden Reach, Entally, and Allipore, at which spots there is abundance of material for the generation of the greater quantity, and the worst quality of that poison. Garden Reach is in a most neglected state; the tanks are filthy, vegetation is considerable, and the stench of vegeto-animal matter must be observable to every one who is in the habits of visiting that quarter at the termination of the rains.

The road parallel with the Mussulman burial ground, and in front of the Martiniere in the direction of Bally Gunge, exhibits broad stagnant ditches with decaying grass, and brush-wood surrounding dilapidated buildings which have been forsaken, no doubt from the unhealthiness of the neighbourhood.

The roads branching off the Circular Road in the direction of the salt water lake, display a still worse state from neglect and want of regard to cleanliness. There are accumulations of matter in a state of putrefaction, which must send forth the most pestiferous odours into the very centre of Calcutta.

As for this city of palaces as it is termed; its elegant buildings are surrounded by dirty native huts, stagnating pools, and some of its finest tanks which are so much admired, are in many places the source of disease. I am aware that it is laid to my charge that I am prejudiced against tanks, and that it is my desire to see them all filled up; but I beg to say that I am not prejudiced contrary to the views of science and experience. I know it to be a fact ascertained not only from my own observation, but by such men as Trotter, Lind, Jackson, Rush, Johnson, Chapman, Fergusson, and others, that although the pestiferous

quality of malaria is not generated from the body of the tank, it is from its drying or half dried margins, if those are not built up with brick faces. Water without being absorbed by the adjacent soil gives out no morbific effluvia. Febrific malaria is generated from the paucity of water, where it has been previously absorbed, when that paucity is short of actual dryness : to the production of this, the high atmospherical temperature of September, October, and sometimes November, is necessary. In proportion to the intensity of temperature, so is the intensity of the power of malaria obtained, varying its effects upon the human body. The space of time which intervenes between the application of this insidious poison to the system, depending however not only on the degree of its concentration aforesaid, but also on the pre-disposition of the patient.

From the foregoing observations I do not hesitate to express my apprehension, as to the canal which is being made around Calcutta becoming hereafter a fruitful source of disease. Deep ravines impervious to the rays of the sun and free currents of air that have been water courses, have, after their surface has appeared dry, retained sufficient moisture to give out the most dangerous miasmata, the more dangerous because the more concentrated for want of perflation, and in fine, salubrious and insalubrious soils, may, under such circumstances, change character in regard to health, and localities in the neighbourhood of each, under the same modification of climate, be very differently affected. From the knowledge of these facts, when I entered upon my present situation, the Hon. the Deputy Governor complied with my recommendation to water the ditch of the Fort in the rainy season. The result was a degree of health during those years in which it was done unprecedented in Fort William. This year the ditch was not watered, and what is the result?—that most of the inhabitants in the lower roomed quarters of the gateway have been affected with severe Fevers, and the sickness in H. M.'s 49th has been to a very great and alarming extent.

I trust I have shewn sufficient to prove the necessity which exists for improvement in habits of polity and cleanliness, to prevent this city becoming a second Batavia as respects filth and disease.

I now proceed to notice my mode of treatment of this Epidemic. From the foregoing description of the symptoms there could be no question as to the necessity of adopting the antiphlogistic regimen. The violent pain in the head seemed to indicate the expediency of blood letting, that by lessening arterial action might mitigate or abbreviate a disease which otherwise threatened to be severe and protracted. In my first cases I directed the application of leeches to the head, but such was the sinking and prostration induced thereby, that I found that blood letting or topical bleeding were both nugatory, superfluous, and injurious. The hurried, contracted, hard and full pulse which occurred, I soon found to be the commencement of the paroxysm analogous to that state of circulation which occurs in the first stage of the intermittent paroxysm. It was however only by careful observation that I ascertained the real nature of this particular condition in this Fever, which assumed all the appearance of being inflammatory ; but like the topical symptom, head-ache was the result of conditions, the most opposed to local inflammation or inflammatory action.

Thus an erroneous judgment of this Fever would have been fatal to the patient, so far as respected its treatment, for although I was justified by the symptoms in the application of leeches, the sudden debility which followed, and the whole character of the disease changing to one the very reverse of what it appeared at its commencement, proved topical bleeding to be nugatory in this Fever, and that my judgment had been erroneous, and if I had persisted in it, I should have lost most of my patients. Such was the sinking of the vital powers in some cases of this Fever as to induce many to conclude upon its being of the fatal typhus character, and I had much to do to remove those false impressions made on the minds of many, that it was contagious. Having shewn what would have been the consequences of misapplied blood letting, I must here offer my opinion that I am far from supposing that a stimulant, such as wine, &c. was indicated ; allowing that in some cases it might have proved innoxious, in most it would have augmented the circulation and increased the Fever. I am however aware of the opinions set forth as to its singular combination of stimulant and sedative powers, rendering it one of the most convenient remedies in the low or the latter stages of Fever, and that it has often appeared the means of supporting the patient to a favorable termination ; but the day has gone by of giving to wine the character of being that specific and valuable remedy which it bore many years since. Irritability of stomach was removed. I found the draught before alluded to remain and bring away the remains of foetid accumulations.

The sulphate of quinine was continued from three to four days, and never beyond the fifth, when the patient generally recovered without requiring any other medical treatment.

Cold applications to the head had the injurious tendency of retarding moisture upon the skin, they were therefore prohibited.

I had no occasion in any instance to apply blisters. In all Fevers they are attended with vexatious results, and I know such to have been the case, in some instances concerning which I was consulted. The diet consisted exclusively of warm congee, boiling water, and chicken soup : cold drinks were discountenanced in every instance. The mode of treatment

adopted by me therefore has been to give one dose of calomel from 15 to 20 grains to an adult, followed up four of five hours afterwards with a purge of magnesia sulphas. in infus. sennæ. Two hours from the time of giving the purgative, were administered from seven to eight grains of sulphate of quinine every four hours. In some cases it was necessary to repeat the calomel and the purgative, but not in all.

When great irritability of stomach existed, I prescribed instead of the senna and salts the extract of colocynth fifteen grains, combined with five of calomel; and when such was the treatment, the result was that in upwards of two hundred patients, consisting of European families, not one of my patients died. They were generally well on the sixth day and able to resume their respective occupations.

CASE OF HEMIPLEGIA.

Francis Joseph, age 35 years, of sallow unhealthy complexion, a seaman on board an Indiaman, just arrived from England, was admitted into the General Hospital on the 27th of January, 1833, with hernia humoralis, which in a few days was relieved by free local bleeding and the exhibition of a solution of salts and tartar emetic to nausea and purging.

On the evening of the 6th of February, the patient called my attention to a sensation of numbness, and imperfect muscular power of the left upper extremity, and a drawing of the mouth to the right side, which he said had been gradually increasing during the two preceding days; the expression of his countenance was uncomfortable, and his pulse, though small, was quick and hard.

Bleeding to syncope, and a brisk mercurial purgative were prescribed.

At 6 A. M. the following day, I found him hemiplegic; the muscular power of the left half of the body being completely paralyzed. Sensation imperfectly continued, whilst the circulation and temperature of the affected parts was natural. He passed evacuations involuntarily, and the urine was retained. He was heavy and drowsy, but complained only of pain in the sciatic nerve; percussion in the course of the spinal column caused no uneasiness.

The head was shaved and cold applied, 30 leeches to the occiput, calomel purgatives and low diet prescribed.

8th February.—The paralytic symptoms unrelieved; frequent dark stools pass off in bed.

Thirty leeches to the cervical spine, and calomel purgatives continued, Catheter passed, and oz. iv. of fœtid ammoniacal urine drawn.

9th.—No change for the better. Thirty leeches to the base of the head and cervical spine; calomel purgative and catheter passed.

10th.—He appears somewhat exhausted by depletion, and the smart action which has been kept up on the alimentary canal. Pulse small and quick, countenance anxious; paralytic state of the left half of the body continues complete. Mouth affected by mercury.

Blister from the back of the head to the sacrum. Pul. Jalap comp. zi. at 7 A. M. Strychnine gr. $\frac{1}{4}$ every 3 hours—milk diet and sago. Urine drawn off.

11th & 12th.—The same remedies continued without advantage.

13th.—During last night he passed a small quantity of urine, and he can now retain the fæces until a bed-pan is placed under him; he can also raise the extremities from the bed. Remedies continued.

14th.—Passed 4 oz. of fœtid urine in the night, and three voluntary stools; has more power over the extremities, and the features are less distorted.

16th.—Gradually improving under the same treatment; can now carry his arm up to his head.

21st.—Has been progressing since the last date. He can at this time walk, drawing the limb awkwardly after him, and raise the arm over the head; the muscles of the face have recovered their action, and the angle of the mouth is scarcely observed to incline to the right side when he speaks.

Medicine continued. Chicken diet.

March 13th.—Has perfect use of the whole of the lately paralyzed parts, but he feels weaker on that than on the opposite side—Strychnine discontinued.

A mild aperient every morning.

April 23d.—Discharged perfectly cured, and in good health.

No tetanic or apparent nervous excitement was occasioned by the internal exhibition of Strychnine.

WALTER RALEIGH,
General Hospital.

NATIVE MEDICAL EDUCATION.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—You may have observed that on a late occasion I took an opportunity of throwing together a few observations on the subject of Native Medical Education, I can scarcely say with the view of exciting attention to the subject, for that had been already roused, and the enlarged views of the nobleman at the head of the Government directed to it.

With your permission, Gentlemen, I propose to avail myself of your Journal to extend my observations, convinced as I am that there is scarcely a subject that can be agitated of greater importance to the numerous population of this vast empire.

Before proceeding to the suggestions which I mean to offer, I may be permitted to premise, that I have been accused by a witty writer in one of the daily prints of a wish to exclude East Indians from the scheme of Medical Education, which, it may be presumed, it is the intention of Government to establish. The members of the East India community will no doubt readily absolve me from such a charge; and

to satisfy others it may be sufficient to observe that I could hardly contemplate such exclusion, believing as I do that this country is daily assuming more and more of an European character, and that it will do so with redoubled strides when the provisions of the new Charter shall have been brought into operation.

I shall now proceed to the consideration of the object more immediately in view, viz. to suggest further means of improving and advancing Native Medical Education in addition to those which I had the honor of pointing out in the letter above alluded to. What I am going to suggest, I am aware may be considered objectionable by some, and perhaps premature by those more favorably inclined to the proposal and the proposer; be that as it may, I am sensible that I derived considerable advantages from an institution of the sort I have in view, and I shall not shrink from doing what I consider likely to advance the interests of my fellow creatures and of medical science through any fear of incurring either censure or ridicule.

I allude to the establishment of a Native Medical Society.

The institution I conceive ought to be left open to Europeans, East Indians, and Natives without reference to religious persuasion; professional standing however might afford ground for distinction, and the East Indian and Native practitioners might form themselves into a distinct class to be denominated the first class of the society.

I confess I am not so sanguine as to expect that medical science would be much advanced by such an association; but there can be little doubt that the members of this class might very much improve themselves in medical knowledge by the discussion of professional subjects.

It is not my intention however to consider this branch of the subject on the present occasion; but to confine my attention to the 2d or juvenile class of the society. This I propose should be composed of the students and native teachers attached to the school for native doctors, the students attached to the Hindoo College, and any of the native doctors about the presidency who might choose to join it. The meetings of this class should be weekly, and the attendance of the juvenile or ordinary members compulsory. The minutes of the previous meeting having been read, and the miscellaneous affairs of the society transacted, the professional business of the evening should be commenced on. This I beg to suggest should consist of one of the students reading a discourse of his own composition in the Hindoostanee language on any medical topic he might choose to select, after which a second should undergo an examination on a subject connected with anatomy, surgery, or materia medica, and finally a third student should be made to read a case of disease, explaining as he went what he conceived to be its nature, and the views which appeared to him to have guided the practitioner in his line of treatment. Each of the students taking the above prominent part in the business of the evening ought to be subject to the examination of any member who might feel inclined to enter into the discussion, with the view either of eliciting or of imparting information, and to enable all parties to come adequately prepared, the several tasks ought to be regularly apportioned to the young men at least six weeks before being publicly brought on before the society.

The discourse would lead the young men to enquire as deeply and to acquire as much information on the subject as their opportunities would admit; it would likewise teach them to have confidence in themselves, and to compose in their own language with fluency and grammatical accuracy, so as to be able in after life to communicate with ease and precision any interesting fact which might occur to them.

The examination on a subject connected with anatomy, surgery, or materia medica would tend to fix the minds of the students on the elements of all future excellence in their profession; while the reading and discussion of the medical case would teach them to draw up that important record, a branch of medical education which perhaps is not at present so much attended to as it deserves. Nothing in fact can be more important than to teach the student to record with perspicuity the diagnostic marks of the disease, and to meet with prompt and adequate measures the various symptoms as they successively present themselves during its progress. This ought to be done too in such a manner as to show at once the rationale of the pratice or the grounds and views on which the practitioner has prescribed.

Such an institution as I advocate would besides possess invaluable advantages, in as much as it would render the instruction communicated at the Native Medical Institution and at the Hindoo College common to the students at both these seminaries; and its benefits would be still greater, should Government ultimately institute still more perfect classes for the dissemination of medical knowledge.

It may be observed that I have recommended the discussions to be carried on in the Hindoostanee language; my reason for preferring that tongue is that it would be familiar to all, and that it would afford a certain safeguard, that the instructions communicated in English or derived from that source, were perfectly understood; it might likewise perhaps tend to render that language more copious in regard to technical expressions in medical science, or by the introduction of others from foreign sources to render it in this respect more perfect.

The management of the affairs of the society ought in my opinion to be left entirely to its members, so as to inspire them with feelings of pride and emulation, and a desire for the advancement of its interests. The members ought to be elected by ballot after having undergone a preli-

minary examination on previous general attainments : a small admission fee might likewise be demanded, which would assist to defray the expenses attendant on the meetings of the society, and gradually to acquire a library for the use of its members. It might at the same time induce candidates for admission and the members of the institution to think more highly of its advantages than if they could command them gratuitously.

The members of the society ought to be left to elect their own office bearers from amongst themselves ; a privilege which might assist to instil some ideas of freedom into their breasts. This need not debar them however from electing Native or European gentlemen to be honorary or extraordinary members of their association ; but though these ought to have free admission to the meetings of the society, they ought in no way to be allowed to interfere with the general management of the institution save by their individual votes, or in the way of advice.

It will immediately occur to every one that branches of this society might be established at all the large stations throughout the country, and much good might be done in this way by instructing those who have received no regular medical education, and by refreshing in the memories of those who have, much that had began to fade and decay.

A place of meeting I imagine could be found without difficulty at one of the colleges, so that no expense need be incurred on that account.

Approving as I believe you do, Gentlemen, of this suggestion, and wanting as I know you are not, in the cause of native improvement, particularly in our profession, I trust that you will use your influence to have the plan now developed, or one in some degree similar to it, carried into effect.

Before I conclude, even at the sacrifice of extending this already too protracted address, allow me to congratulate you on the more than praise-worthy undertaking in which you are embarked, an undertaking in which I trust you will be supported and encouraged by those for whose benefit it has been undertaken.

I have the honour to be, &c.

JAS. HUTCHINSON.

THE PHYSICIAN.

No. 1.

ON INFANTILE REMITTENT FEVER.

The most fatal period of life is that between the birth of the infant and the fifth year.—The weakness of the constitution ; the delicacy of the stomach, and other digestive organs ; the tendency to inflammation ; and the functional irratibility so manifest at that early period ; all conspire to encircle with danger the little objects of our solicitude. Dentition too, brings its train of attendant terrors. So that, of all who are born, very many return to the dust before the completion of their seventh year.

The subject, however, of our present notice seems to be almost confined to a period of three years out of those seven, leaving the two first to their own ailments and the two last, in many instances, to the sad effects of this disease, known by medical men, as the Infantile Remittent Fever. Thus it is an important disease, both as respects its present symptoms, and the permanent effects it leaves upon the constitution. And, as much of the treatment, and too often the result, depend upon the first steps taken by the parents of the patient, it is a serious matter that they should know what to do, ere a medical practitioner can arrive ; or, as frequently happens in the mofussil, ere he can be even sent for. Therefore, it is intended in this paper to draw up as succinctly as possible, and as free from technical terms as may be, the causes, symptoms, and treatment of the disease.

The causes of Infantile Remittent Fever, may generally be traced to that delicacy of the digestive organs in so young a creature to which we have before alluded. The child now, for the first time, begins to use those teeth it has but recently acquired, at the expence of pain, danger, and sorrow. And it is often found, that the food supplied to it, has not been wisely chosen, or, has been indulged in to excess. Mothers too sometimes judge by their own palates of the powers of their child, affectionately thinking that what is pleasant to themselves can do no harm to their little one. And thus they too often sow the seeds of disease in the constitution which they fondly intend to strengthen. Many a time have we heard a mother describe the eating capabilities of her baby, and remark with pleasure upon its fat and rosy cheeks ; whilst she was little aware that in the indulgence of the one she was laying up store of sickness for her offspring, and that the other might serve but to increase the severity of the disease.

The chief, perhaps the only cause, then, of Infantile Remittent Fever lies in the digestive organs. The stomach, in the first instance, and afterwards the bowels, have too great a task laid upon them ; they are overloaded ; a torpor is produced ; their functions are ill performed ; and frequently every thing is ready for an attack for a long time before fever comes on. At this crisis, some accident or other, some degree of cold, or something that is eaten excites a more than usual degree of irritation, and in a few hours afterwards the whole train of symptoms appears. In this case " the child has caught cold," or, " it has eaten something that has disagreed with it ;" but the real cause has, probably for some time, been accumulating in the bowels.

The approach of Infantile Remittent Fever is insidious and various in its form.

Generally there is some degree of fever for many hours, or even for several days before the severer symptoms come on. The child is fretful and thirsty; the lips are dry and parched; the hands hot; the breath short; the head warm and painful; and the pulse frequent, often 120, 130, or even 140 in a minute. In the night the sleep is disturbed, and the thirst so troublesome that the little patient cries out constantly for water, and scarcely has it been given ere the mother is again aroused by the same plaintive cry. The appetite is lost; and the bowels are either costive, or loose, mucous, slimy stools are frequently discharged. The symptoms are now more severe; the fever is more ardent; the heat of the body, and especially of the forehead is increased; the skin is very dry; and a kind of stupor comes on so that little or no pain is complained of unless the child is questioned particularly, when it puts its hand on the belly, or to the forehead. The tongue in a little time becomes foul; and sometimes there is a morbid craving for food instead of the previous loss of appetite. The stools grow worse, being either foetid, dark coloured, pitchy kind of motions, or thin green and curdly, and even now and then mixed with blood. Sometimes too the drowsiness is exchanged for a state of excitement, and the child laughs and appears in good spirits, though its flushed countenance, and heated, dry skin, proclaim but too truly, the presence of disease.

But the fever does not continue alike all the day. There is generally a remission toward the morning, and the evening, when the patient is comparatively cool; and this remission is more marked if the child is taken into the open air. But, as the day or the night advances the fever returns, bringing again its distressing symptoms of general disorder.

When the disease has thus continued for many days, unchecked by the treatment pursued, delirium comes on. The child is with difficulty roused to consciousness by the voice of its parent. The debility is very great; the body wastes away; the strength is exhausted; the belly swells; the stupor increases, and death closes the scene.

Such are the symptoms of Infantile Remittent Fever, and it behoves the practitioner to distinguish between them and those of Hydrocephalus, or water in the head. In this fever, the pain is little; the vomiting, if any, but of those irritating matters in the stomach which perhaps gave rise to the immediate symptoms of the disease. In Hydrocephalus again, the nausea appears to be almost constant; there are occasional screamings and tossings of the hands, and the intolerance of light is very great; one possesses many of the symptoms of active inflammation; the other, those of irritation of the general system from a local cause.

And here it is that practice frequently fails. Leeches and bleeding are too often applied when purgatives ought to be resorted to and relied on. And the blood thus erroneously abstracted is wanted at the turn of the disease when excitement is changed into debility, when a bottle of wine in the stomach is of less avail to a patient than a tea spoonful of blood in the veins.

For the treatment of this disease, let the mother be watchful of its first approach. When the disorder of the bowels is first observed, let it be remedied by the judicious administration of purgative medicines. And of these a dose of two or three grains (according to the age of the patient,) of calomel at bedtime, followed up by another of castor oil in the morning, are perhaps the best. These may be repeated once or twice in the course of the next week, or ten days, when probably nothing further may be required but to avoid those causes that have produced the disease.

When matters have proceeded further, and feverish symptoms have appeared; an emetic of Ipecacuanha, from five to ten grains, according to the age of the child, should be given; or vomiting may be excited by giving a large draught of tepid water and tickling the fauces with a feather previously dipped in oil: and then calomel may be given, either directly the stomach is settled after the vomiting, and castor oil one hour afterwards, which is the best practice perhaps; or, if much of the day is already over, the evening may be waited for and calomel given at bedtime, and castor oil in the morning. And this treatment, repeating the calomel and castor oil as before, will frequently end the disease without any thing further being done.

But when the symptoms of fever become fully established, the matter is much more serious. The emetic must be given without a moment's delay: and so soon as the stomach is settled, calomel in two or these grain doses should be given every four hours. At bedtime a warm bath should be prepared, of about 98 or 100 degrees of Farenheit's thermometer, and the child put into it for five minutes, covering it in close up to the neck with a blanket or shawl, so as to keep in the steam; and a full dose of castor oil must be administered early in the morning. After the operation of the oil there will generally be a notable remission of fever, but it will not fail to come on again toward the evening, when the warm bath should be repeated; the doses of calomel every four hours resumed; and another dose of castor oil given the following morning. If these directions are strictly adhered to, it is likely that the fever will not come on again with the same violence as on the preceding nights. It is possible even that it may not recur at all; but most generally it does; and another single dose of calomel at bedtime, followed up by one of castor oil, or rhubarb and calcined magnesia, or jalap and calcined magnesia, is required to remove it altogether.

It is rarely, if ever, found, that bleeding, either by the lancet, or by leeches, is required in this fever. When it is useful in

cases of great determination of blood to the head, the disease may probably partake more or less of the characters of Hydrocephalus, or water in the head, rather than of Infantile Remittent Fever.

In the above treatment Ipecacuanha is recommended as an emetic rather than antimonial wine or any other form of emetic tartar. The vomiting caused by the latter medicine is very severe, and the retchings are carried to a painful excess. And indeed the author of this paper has more than once seen the little patient start and throw its arms about with convulsive motions, after the exhibition of antimonials, in any form, whether James's powder or tartar emetic, which occasioned vomitting. These convulsions may have arisen from temporary congestions of the vessels of the brain, occasioned by the excessive retching ; and were very alarming to look at.

After the fever is subdued, the whole treatment consists in keeping the bowels open, but not purged. Some recommend quinine, and other tonics, but there is danger in doing too much. The diet, during the progress of the disease consisted of nothing but barley water, toast and water, or tea ; but now it may be improved by the addition of arrow root, sago, or any other light food. Particular care should be paid to the bowels and the food, that the stomach may not become overloaded again, and the child not urged to get well too fast. The clothing also should be carefully attended to, in every case putting flannel next the skin ; and, if possible, change of air should be tried. Indeed this last point of change of air cannot be too much insisted on. A child has been known to lose all traces of fever in less than twenty four hours after change of air has been resorted to, and a rapid recovery has followed, although every other remedy had been used for eight days before, without scarcely any prospect but a fatal termination of the case.

All mention of organic derangement, such as chronic enlargement of the liver, spleen, and mesenteric glands, has been intentionally omitted in this paper ; because they indicate a far too serious state of disease to be dealt with by any but a medical man. It may however be doubted if they often occur either as sequels or accompaniments of Infantile Remittent Fever, if the disease is early attended to, and properly treated.

In conclusion, it may be remarked that Infantile Remittent Fever has rarely a fatal termination under a proper system of treatment, if this treatment begins at an early period of the disease ; and that it may almost always be averted by due attention to the stomach and bowels. Let this be carefully attended to by those who have children under their charge, for none can duly estimate its importance but those who know from experience how *much easier it is to avert than to cure a disease.*

ANALYSIS OF BOOKS.

ABSTRACT OF THE MEDICO-CHIRURGICAL REVIEW OF JULY 1833.

A work by Dr. James O'Beirne, entitled "*New views of the Process of Defecation, and their application to the pathology and treatment of Diseases of the Stomach, Bowels and other organs,*" &c., occasions some ironical remarks on the part of the reviewer. He observes that *originality*, whether theoretical or practical, has been so rare of late years in medicine, that it is quite refreshing to see even the pretension to it confidently made. In relation to a remark of Dr. O'Beirne that the mind is slow to admit, and active in resisting every truth, the Reviewer pithily puts it to his cool judgment whether this opposition is not rather against new *doctrines* than against new *truths*, deeming that until every new assertion is proved to be a true one, the caution to be very salutary! What has occasioned all this backwardness to receive new truths? Nothing but the woeful experience that nineteen new truths out of twenty are no truths at all!

In 1821 Dr. O'Beirne states that he treated a case of traumatic tetanus with success by means of tobacco enemata. In 1822 he employed the same remedy in another case, but it failed. In both cases however, he observed that there was great difficulty in pushing the injection higher up the rectum. The circumstance convinced him that the muscular coats of that gut participated in the state of general spasm. The idea therefore occurred of introducing an elastic tube into the sigmoid flexure of the colon. In October of the same year an opportunity occurred of testing the idea in a case of traumatic tetanus. A large gum elastic catheter was pushed up with great difficulty through the contracted parietes of the intestine ; and at length when introduced to the extent of nine or ten inches, it rapidly passed forward, as through a narrow ring—'when an escape of flatus and fluid feces took place from its extremity (the inner end having been cut off and smoothed,) giving great relief to the patient.' It was now in Dr. O'B.'s power to administer the tobacco enema, so as to insure its own peculiar effects, and open the bowels.

To some propositions of the author the Reviewer protests against, and apparently with great reason. One of these is the assumption of there being a considerable degree of opposition to the ascent of fluid in the rectum, and of considerable force being required to discharge it. The Reviewer appeals to universal experience whether this difficulty in throwing up enemas be not the *exception*, rather than the general rule. This early attempt to strain an exception into a general rule in order to support a theory evidently inspires the Reviewer with some distrust. Grant the rule as a general one, and then in every case of costiveness, there must be an elastic catheter introduced into the sigmoid flexure.

In treating of the curative indications of constipation, Dr. O'B. confines his observations to the disease as it arises from ordinary causes; and assuming that the rectum is contracted, and the colon distended with fœces and flatus, the obvious indication he conceives to be "to mechanically dilate the rectum, so as to open and form a free communication with the colon, and thereby not only give vent, but circulation to the matter confined."

The detail of the operations for this purpose is rather long; and few, the Reviewer observes, will have perused it, without having repeatedly asked the question—Is this then the remedy for constipation of the bowels? The operation in every instance must require one able surgeon and an assistant! How is such a practice ever to become general? How many patients labouring under constipation of the bowels (especially females who are the most numerous) will submit to it? Not one in one hundred! It is clear that the remedy is only adapted to dangerous cases, where the common means fail, and where the life of the patients is in danger; or to a few obstinate cases in men, who may be inclined to submit to much trouble and inconvenience to get rid of an obstinate evil.

The notice of Dr. Gairdner's *Essay on Mineral and Thermal Springs*, having very little relation to Indian practice, we can afford to pass over for the present, merely placing before the reader Saunders' Chemico-Medical arrangement. 1. Simple cold, as Malvern. 2. Simple thermal, as Buxton. 3. Simple saline, as seidlitz and sea-water. 4. Highly carbonated alkaline or seltzer. 5. Simple carbonate chalybeate, or Tunbridge. 6. Hot carbonated chalybeate, Bath. 7. Highly carbonated chalybeate or Pyrmont. 8. Saline carbonated chalybeate or Cheltenham. 9. Hot saline highly carbonated chalybeate, Karisbad. 10. Vitriolated chalybeate, Hartfell. 11. Cold sulphureous, or Harrowgate. 12. Hot alkaline sulphureous, Bareges. This very complicated classification was succeeded by one of a totally different character, remarkable for its simplicity and extreme regularity, being that recognized by the late Dr. Murray and a majority of late writers on the subject. They are all comprised under the four classes of—1, carbonated; 2, sulphureous; 3, chalybeates; 4, saline.

Mr. Wallace in his *Treatise on the Venereal Disease*, draws the following practical conclusions from views which at present we cannot state more at length. 1. If by any means the poisonous quality of an ulcer, produced by the direct application of the venereal virus, can be destroyed before the process of ulceration has ceased in any point of the ulcer, the contamination of the system will be prevented. 2. If from the violence of inflammation a process of sloughing commences in a chancre before the action of ulceration has ceased upon any portion of its surface, and if this process involves the structure of the part beyond the point of contamination, it may form not only a natural case of the local disease, but may also prevent contamination of the system. 3. Should a bubo occur in consequence of a chancre, before the ulcerating process of that chancre has ceased, it is more likely that such a bubo has been produced by irritation than by the absorption of the virus. Mr. Wallace further unhesitatingly maintains that syphilis and gonorrhœa arise from the same morbid poison. The Reviewer deeming it unnecessary to repeat the arguments against this opinion which have frequently been urged and never satisfactorily answered, merely contents himself with observing that here, as on other occasions, Mr. Wallace begs the question.

With reference to M. M. Louis and Andral's *Essays on Pericarditis*, the Reviewer concedes that it is to the researches of M. Louis, published in the Révue Medicale, that we are indebted for the first satisfactory mode of diagnosis of pericarditis. The general similarity of the symptoms caused by disease of the heart and its appendages, the frequency of the occurrence of the affection, in connexion with disease of the other thoracic organs, the absence (in some cases) of any very obvious signs of its existence, or what is termed its latent form, and the imperfect examination made of individuals suffering from the affection, constitute the chief causes of the obscurity which has been considered as belonging to this disease.

M. Louis' Essay reprinted with some additions to the general one, contains the minute details of some cases which have fallen under his own care, and an examination of those which are recorded in other works; and by a careful induction from which, he has established a certain train of symptoms as characteristic of pericarditis, which may be said, at least, in the majority of instances, to render its diagnosis a matter of comparative facility. Subsequently to the publication of his essay, M. Andral has recorded in his Clinique Medicale, the history of nine cases of this disease, which are confirmatory of his views. The following case is simply stated and may serve as a specimen:

"1st case. The affection commenced in a healthy young man aged 27, by an acute pain in the præcordial and epigastric regions and between the shoulders, palpitations—dyspnœa: the palpitations ceased after three days' duration, the pain continuing more or less acute at intervals; constant oppression, becoming more considerable about the 8th day; pulse exceedingly irregular; beat of the heart dull, distant, and often doubtful; cough—expectoration slight; very evident tumefaction of the thorax at the præcordial region, of considerable extent, over the whole surface of which a dull sound is yielded by percussion, and the respiratory murmur is inaudible; percussion sonorous and respiration perfect over the remainder of the chest. With these symptoms were associated infiltration of the limbs, gradual diminution of temperature, extreme dispnœa: death occurred two months after the commencement of the disease; colliquative diarrhœa having somewhat hastened its termination. The principal, and almost only morbid appearances were a thick false membrane, poured out from the whole surface of the pericardium, which contained about a pint and a half of a red and turbid serum."

The Reviewer commenting on this case, states that the connexion between the dis-

ease and its symptoms was evident. The almost constant irregularity of the pulse indicated a very serious lesion of the central organ of the circulation. The projection of the ribs in the præcordial region forms one of the most peculiar circumstances in this case. Should it be found to exist in other instances, it will become one of the best diagnostic signs. Fainting is comparatively a rare symptom. Palpitations are frequent; the dyspnœa which exists in all cases, cannot be estimated as a sign of any value, since it is common to this and any other thoracic affection. It is difficult to state any thing precise as to the duration and progress of pericarditis; but from some facts mentioned by Corvisart and others, it may be stated that at its onset the disease is generally violent, that the symptoms soon diminish in intensity, and that death takes place between the 24th and 80th day from the commencement. The prognosis is a subject of much difficulty. Its complication with other diseases of an equally serious, if not more alarming, character, accounts for this difficulty. By estimating from examination of a great number of cases, some of which he had personally examined, the Reviewer (Dr. Johnson) is led to conclude that the probable proportion of fatal cases of pericarditis, is one of every six.

Its causes are enveloped in much obscurity. Women are less frequently affected with it than men, and it appears oftener in youth and old age, than in the intermediate period of life. Corvisart relates a case in which the disease followed a blow, and Bertin, one in which it appeared subsequently to great exertion. From its frequency in connexion with pleuro-pneumonia, it is probably excited by similar causes, and may be subject in such cases to its influence.

The subject of treatment of acute pericarditis has received from Louis the attention which might be expected; very moderate general and local treatment, slight counter irritation, with abstinence and rest, were the means employed in two cases, one of which is stated above. When speaking generally of treatment, he hazards only the following remark; that from the cases on record nothing decisive on the subject can be stated; that from the exacerbations of symptoms which in the cases he has related, followed any excitement, whether the most simple motion or the slightest cough, it is evident that absolute rest constitutes one of the most important principles in the treatment of pericarditis. The latter details of Andral, although entering more fully into the means of cure, contain but one example out of the nine cases, in which those means were successful in putting a stop to the disease. He recommends general local depletion, with digitalis during the early stage, and subsequently various modes of counter irritation, &c.

Dr. Lee's *Researches on the Pathology and treatment of some of the most important diseases of women*, are strongly recommended to the medical reader by the Reviewer. No one of late years, he conceives, has deserved better of the obstetrical profession than Dr. Lee. His researches on the morbid anatomy of that disease, which under the name of puerperal fever, puerperal peritonitis, child-bed fever, epidemic disease of lying-in-women, &c. has so long perplexed and bewildered medical men, have done more for the right understanding of the subject than the whole host of the violent and hot-headed publications, which at different periods have issued from the press. There is neither the antiquated bigotry of those who are determined that it is and must be a peculiar essential typhus, requiring wine, bark, and cordials for its treatment; nor yet the furious monomania of some medical reformers, whose eyes can see nothing, and whose heads can understand nothing, save inflammation of the peritoneum and viscera. The riddle is now in a great measure solved, for indeed it was staggering, especially to our professional brethren, when they were told that equally clever men treated the same malady with brandy and ammonia on the one hand, and with Sangrado depletion and starvation on the other. The longer we live the more do we see the strong necessity of forming ultimate conclusions in medical science, very slowly, and cautiously; of patient and often repeated examination of any subject before we permit our minds even to entertain any theory of its cause.

These remarks have been prompted by our memory of the conflicting and utterly discordant statements of different writers on the subject of puerperal fever. Thanks to Dr. Lee, he has in a great measure furnished us with the clue to conduct us through the labyrinth of opinions, and has taught us how to reconcile, at least to a certain extent, assertions apparently distinct, as far as East is from the West. He most satisfactorily proves, that all the destructive febrile affections which follow parturition are invariably associated with, if not directly caused, by inflammation of some of the textures of the womb, or of its appendages; and that the type or character of the fever is probably dependent upon the particular tissue most involved; thus, that in the inflammatory pyrexia, the peritoneal lining chiefly is inflamed; in the congestive, the muscular substance, and in the low typhoid, the veins of the uterus and ovaria. This is the pith and marrow of Dr. Lee's doctrines; the corner stone of his ingenious, and we may probably add, secure building.

The section which treats of uterine phlebitis merits a most careful and studious perusal. The all-comprehensive mind of John Hunter was the first to point out that veins are subject to inflammation, and its consequences, and that very often most dangerous and fatal symptoms result from these morbid states. We have since the researches of the Italian Surgeon Paletta Mechel, Dr. John Clarke, Mr. Wilson and Professor Burns on the subject, &c.

The term of phlegmasia dolens, as it used to be called, is likely soon to become obsolete. Dr. Lee prefers that of crural phebitis, because the swelling of the affected limb, and all the other local and constitutional symptoms of the affection, invariably depend upon inflammation of the iliac and femoral veins. The Reviewer does not think that there is wisdom in this change, for the good reason that he is not yet satisfied that it has been clearly made out that the disease consists of inflammation of the veins alone. He grounds his reasons for not agreeing with the doctrine of the phlebetic origin of true phlegmasia dolens, chiefly on the circumstances, that inflammation of the veins may be present, without any of the symptoms of phlegmasia dolens; and that genuine phlegmasia dolens is rarely fatal, while genuine phlebitis is one of the most destructive of all diseases. It is proper to state that Dr. Lee is of opinion, that the phlebitis in phlegmasia dolens invariably commences in the uterine veins, and is thence propagated along the branches of the hypogastric to the internal, common and external iliacs, to the femoral vein and its branches. The cases adduced by him render this supposition very probable. *Crural phlebitis* in man may be induced by disease of the rectum, bladder, prostrate, urethra, &c.; the inflammation commencing in the veins of these parts, and extending gradually to the iliac and femoral vessels. One of the most common causes is the application of cold to the limb.

The article *on burns* from Dupuytren's clinical lectures in surgery, is a mere transcript of cases, but of very interesting character. The following, in which rheumatism simulated luxation of the cervical vertebræ, is rather curious:

"A boy aged 15 was brought to M. Dupuytren by several practitioners who believed that he had dislocated his neck. Two days previously, in endeavouring to take off his shirt, he made a violent movement, and at the same time felt acute pain in the cervical region, and heard a crack; his head remained firmly bent towards the left side. The surgeons who were called in, pronounced it an incomplete luxation of the first vertebra, on the second, but as the case appeared to them obscure and dangerous, they requested M. Dupuytren's opinion. On examination he found the head strongly bent to the left side, and the spinous process of the first vertebra projecting; the neck was rounded on the opposite side; he felt great pain in the part, which was encreased on the slightest effort made to rectify the displacement of the head. There was numbness and pricking pains in the right shoulder and arm; the patient swallowed with difficulty, and was unable to turn or bend his head. M. Dupuytren immediately decided there was no luxation, but that the affection was rheumatic. He had often seen, in persons subject to rheumatism, the occurrence of acute pain in the neck after some effort, owing to the erratic rheumatism becoming fixed. Thus persons while dancing are seized with acute pain in the calf, which hinders them from walking for two or three days, and which does not at all depend on rupture of the tendon of the plantaris, others, in mounting into a cabriolet, feel suddenly so acute a pain in the common mass of the sacro-lumbales and longissimi dorsi muscles, that they step back alarmed, believing they have been struck or wounded; such pains, when they cease in one part, not uncommonly attack another. M. Dupuytren was inclined to attribute this cause to the accident, as the patient was obliged frequently to descend into the cellar and to remain there a considerable time daily; he had also had rheumatic pains. Blood to be taken by cupping from the left side of the neck. In the morning, the correctness of the diagnosis was proved by the amelioration of the symptoms. Emollient fomentations, &c. were employed, and in a fortnight the patient left the hospital, having lost every trace of the affection."

To the subject of burns, M. Dupuytren has devoted particular attention, the divisions of this class of injury depend on the tissues that are implicated. They are six. 1. Erythema or simple phlogosis of the skin without vesications. 2. Cutaneous inflammation, with separation of the epidermis by vesication. 3. Destruction of the rete mucosum and papillary surface of the dermis. 4. Disorganization of the whole dermis as deep as the subcutaneous cellular tissue. 5. Eschars of the superficial parts, and of the muscles wholly or partially. 6. Carbonization of the whole thickness of the burned part. Such is M. Dupuytren's division, which differs from that formerly in use, in its more accurate distinction of the injuries of the skin, &c. which had been comprehended by authors under their third or last head, *viz.* the complete destruction of the vitality of a part; but it must not be imagined that cases will often occur, answering solely to either of these degrees. In extensive burns every degree may be recognized in different regions of the body. In many cases these divisions are not easily recognized immediately after the accident. The pain produced by the action of a concentrated heat on the animal solids may be so intense as to cause immediate death. M. Dupuytren has seen several of these cases of 'death by excess of pain,' and he believes that an excessive loss of sensibility may kill, as well as an excessive loss of blood in hœmorrhages. Children and nervous women are most subject to such a termination, adults rarely, and old people never.

In superficial burns of some little extent, there is a constitutional re-action similar to that in Erysipelas, which readily yields to medical treatment. Irritable patients are particularly subject to it. In many burns of the third and fourth degrees there are no unfavourable symptoms until about the fourth day, when inflammation commences. Symptoms of nervous and gastric irritation then set in with greater severity than in the more superficial injury, and sometimes terminate fatally. There is often great oppression and difficulty in breathing, owing to the severe shock which the organs of respiration and of articulation have undergone, and to a secondary bronchial irritation, or pulmonary congestion. Excessive and protracted suppuration gradually exhausts the strength, produces emaciation, and incurable marasmus. One of the most dangerous is phlegmonous erysipelas; even when its progress is arrested, the disorganization it has effected is so excessive, that amputation affords the sole, but doubtful, prospect of success. Thus the constitutional effects of burns may produce a fatal issue four ways; 1st, by irritation; 2d, by

inflammation; 3d, by suppuration; 4th, by exhaustion.

Prognosis. Extensive burns of the first degree may produce death immediately, or in a few hours after the injury; but when 24 or 48 hours have elapsed, resolution commences and the danger is passed. When the burning body is very hot, and its application rapid, it may produce a kind of tumefaction of the epidermis; if the surface thus affected is very large there is great danger. This sometimes is produced by a bath which is too hot. In burns of the second degree, the same effects may be produced, but besides these, there is more danger of inflammation of the internal organs, and the patient is not in safety from such an attack until dessication takes place. In burns of the third degree, there is not only a liability to all the effects of the first two, but to those which may arise from the establishment of the inflammation necessary to detach the eschars. If a considerable surface is affected, such as two or three feet square, death generally takes place when the secondary inflammation or suppuration is established. In burns of the fourth and following degrees, the irritation and pain usually remain no longer than the actual cause, but the sufferers may perish during this period. If they survive it, in some instances they are plunged into a state of stupor, they are icy cold, and die in a few hours, or they rally, and are cut off from the fifth to ninth day by inflammatory reaction, or finally the profuse suppuration, the length of the disease, hospital gangrene, or a low fever produces fatal exhaustion.

Treatment. In burns of the first or of the second degree, which are not attended with destruction of the epidermis, the indications are, to prevent inflammation, vesications, and the formation of eschars. Slightly astringent and sedative applications, which do not stimulate, fulfil this indication. Such are long continued immersion of the part in cold water, or in goulard water, or in water slightly acidulated, or mixed with a little alcohol; when immersion is impracticable, long continued and frequently renewed fomentations with the same liquid, or with ether, alcohol, a solution of sulphate of iron, alum, or ammonia. These latter substances cannot be employed unless the epidermis is uninjured, for if it be removed, they augment the irritation and produce acute pain. It is therefore important to preserve the epidermis, and for this purpose great care must be taken in removing the clothes. If vesications are formed, they must be opened with a needle at their most depending part. Sedatives or topical anodynes, if the pain is considerable. Local or general bleeding if the subject is young, vigorous, and sanguineus. Diet restricted in proportion to the severity of the injury. If the secondary inflammation in burns of the third and fourth degrees is too violent, it should be restrained. In cases of erysipelas, M. Dupuytren applies a temporary blister to the erysipelatous surface, which almost always puts a stop to the inflammation. At this period the burn should be covered with fine linen, having numerous small holes cut in it and smeared with simple cerate or saturnine ointment, above this should be placed a slight layer of charpie to absorb the pus. Emollient cataplasms should be applied to detach the sloughs. In dressing a burn it should be exposed as short a time as possible to the air to prevent pain, a many-tailed bandage therefore is preferable when it can be applied, as by that means, a part of the wound only need be exposed at a time. After extensive burns of the third or fourth degree, suppuration is generally very abundant, so that it becomes necessary to renew the dressings two or three times daily. Substantial food and tonics, such as quinine, given by the mouth, in lavements, and applied topically, are necessary. The deformities resulting from mal-formed cicatrics may almost always be prevented, by carefully cauterising the two prominent granulations, by position, by well applied dressings, and the use of firm splints. When a limb, or part of a limb, is completely destroyed, amputation becomes indispensable. It substitutes a simple wound, which will gradually cicatrice for an irregular solution of continuity, with projection of the bone, as well as the secondary inflammation.

Wounds of the heart. A few years since all wounds of the heart were supposed to be mortal; but facts have proved that penetrating wounds, if narrow, are not only not instantaneously mortal, but that they may be cured. Thus at Warsaw acupuncturation of the heart for cholera was practised. A ball was found lodged in the substance of the right ventricle of a soldier, who received the wound six years previously; several cases are given by Dupuytren, where wounds penetrated the cavity of the heart, and the patient nevertheless survived several days after the injury.

Mayo's Outlines of Human Physiology. The Reviewer takes shame to himself for not having directed the attention of his readers at an earlier period to this really excellent work. The extracts from it and the comments of the Reviewer are rather metaphysical than physiological. Upon comparing sensation and perception in animals with the like affections in man, it is evident (says Mr. Mayo) that the former have a partial superiority as to both. The vision of many birds, the sense of smell in birds, and in a still higher degree in many quadrupeds is more acute than our own. The sense of smell in animals is closely connected with their most powerful instincts. The aversion, for instance, which bees are said to show to particular individuals, is probably excited through this sense. Further to show that in animals the faculty of perception is wonderfully perfect at first, Mr. Mayo quotes from Dr. Smith the familiar instances of chickens, the young of the partridge and grouse, the young of several sorts of animals, &c. It appears to the reviewer, however, that this is by no means so general a law as has been stated. Some

animals are born more capable of independent existence than others. The blind kitten is little, if at all, better off than the puling babe. Who that has observed a nestling, can pretend that the helpless naked bird was born with its instinct perfect and at once ! It is notoriously not the fact ; nay the perceptions of animals are only perfected by experience. The kitten that, prompted by its instinct, pursues with watchful activity the paper dangling from the schoolboy's hand, shuns such unprofitable and vain pursuit when matured into the cat. The cat that, for the first time, sees its image in the mirror, seeks or shuns its imaginary fellow; but a little experience makes it also wise, and if it cannot reason philosophically on mirrors, it evinces a practical knowledge of the delusion. But what is instinct ? volition (says Mr. Mayo) appears to take place whenever we anticipate a greater degree of gratification from exerting than repressing it, we know by experience the prompt influence of the will over our muscular frame. We will, with a general or precise anticipation of what the result will be and in order to obtain it. A drowing man hopes that his cries will bring people to his assistance. Instinct, continues Mr. Mayo, appears to consist in a natural tendency to execute certain voluntary movements without any previous conception of the object they are calculated to attain, upon the occurrence of particular sensations, or states of inward feeling. The Reviewer's comments on this definition are cogent. He observes, that though the impulse which we denominate instinct does act in a great many instances, through the medium of volition cannot be disputed ; yet he is not convinced of the universal truth of Mr. Mayo's conclusion. Under the influence of the passions, which are instinctive, the voluntary muscles are not alone affected but muscles and organs on which the will exercises no power are exerted also. The first effect of fear is to check the circulation. The next to hurry the terrified individual backwards. Is the instinctive impulse to void the urine, &c. or is the sigh an act of volition ? we think not. In short it appears that instinct operates through both the voluntary and involuntary muscles, and whatever the instinctive impulse may be, wherever situated, or how ever obtained, it is something above the will, and acting upon it, in common with parts and functions with which the will has no relation.

There is doubtless a broad gap between man and every other animal, but it is not because man possesses that of which every other animal is deprived ; but because he is gifted with a greater quantity than they. Define reason how we will, it seems impossible to deny its existence in some degree, in the brutes. It certainly is not true that they possess only instinct, if by instinct is meant a faculty not improveable ; and if instinct be improveable, in what does it differ from reason ? That man infinitely excels the brute, there can be no question, nor need we wonder when we look at the immense development of his brain, and the general perfection of his nervous system. How mental phenomena are produced, is a question beyond human power to solve, but this is certain, that in proportion as the brain is developed in the ascending scale of organization, in that proportion is the mind improved and perfected. Concussion and compression of the brain for a time destroy thought, partial lesions occasions partial affections of it. There is doubtless, then, an intimate connexion between cerebral development and mental, and whatever be the case, the brain is certainly the *organ* of the mind.

Mr. Mayo proceeds to consider the phenomena of sleep, dreaming, somnambulism and spectral illusions. To the reviewer it appears, that as sleep is not death, it would be absurd to suppose the functions of the brain annihilated during its continuance, an inference deducible from the arguments of Dugald Stewart. Sleep is a state of comparative, not of absolute quietude—of relative, not total incapabillity of receiving impressions through the senses. A slight noise makes little or no impression, a louder one does excite sensation, and awakes. Dreaming is manifestly an excitation of the brain by former sensation or by present impressions, at a time when its higher attributes or functions of attention, comparison, judgment, are little if at all exercised. But no disquisitions that we have ever read, have offered a satisfactory solution of the immediate cause of sleep or dreams. These are the ultimate facts that have ever baffled, and will ever baffle, human reason, and speculations directed towards them, are profitless waste of thought and time. Mr. Mayo enters into some speculations respectieg the brain, which are ably dealt with by the reviewer, who, with a shew of reason, considers them unphilosophical.

A Treatise on the Urethra and its Diseases, by Benjamin Phillips. The Reviewer observes that some of his readers may not be aware of the antiquity of instruments for exploring the urethra. Trijor and Lassus state that the sound with two curvatures, the invention of which has been referred to Petit, had been in use two thousand years before his time by the Greek surgeons. Lassus had seen in the museum of Portici, near Naples, this kind of sound, which had been discovered in the ruins of Pompeii ; it, as well as all the surgical instruments of the Greeks, was of bronze ; it had the same form, the same length, and the same diameter as that of Petit. The following remarks on the introduction of instruments are good :

" In introducing an instrument into the urethra or bladder, it is necessary to recollect that the two opposed parietes of the urethra, the superior and inferior, differ singularly as to their configuration, and that we cannot indifferently follow the one or the other with the beak of the instrument. The inferior portion is yielding, for neither along the penis nor at the height of the scrotum, nor beneath the pubic symphisis, is it supported by any thing solid. In gliding along the canal, the beak of the sound may

easily enough push before it the lining membrane of the urethra ; for along its surface we meet, in old men, inflections of the membrane (resulting from its flaccidity) which occasionally have a tendency to arrest the progress of the instrument. Those inflections are, however, principally longitudinal and they cannot arrest the passage of an instrument. Some orifices of mucous follicles, and among others those of the glands of Cowper, are, according to general opinion, susceptible of receiving and arresting the beak of the sound, especially if it be of a small size. Lastly, at the level of the bulk and in front of the contour of the neck of the bladder, on the sides of the verumontanum, there exists on the inferior surface marked depressions, the orifices of which are presented towards the external orifice of the urethra ; against these the beak of the sound passes ; and is by them occasionally prevented from making further progress.

If we examine, by means of dissections (attentively made) false passages formed in the urethra, during life, or after death, in subjects submitted to catheterism, we find that they are produced by the rupture of the inferior parietes of this canal, and that the greater number of those passages exist either at the situation of the depression I have pointed out, or at the bulb. The disposition of the superior part of the urethra is infinitely more favourable as a conductor for instruments in their passage along the canal than the inferior. Sustained in front by the corpora cavernosa, and behind by the public symphisis, it presents great firmness ; and we only find longitudinal replications, which are removed by the distention produced by the instrument ; and no obstacle is here presented to its progress : no depression exists here in ordinary circumstances ; there is no projection of the prostrate into this portion of the tube ; neither do we find many follicles, either isolated or grouped ; nor any considerable orifice."

It is impossible for any man to introduce instruments safely and successfully, unless he keep the point of the instrument directed towards the superior rather than the inferior wall of the urethra ; and it is owing to ignorance or neglect of this precaution that we see catheters or sounds passed in the bungling, and the mischievous manner in which they frequently are. The Reviewer, in reference to Mr. Phillips' definition, origin, classification, situation, and symptoms of stricture, sees nothing peculiar or striking in them ; and refers accordingly to the book itself.

The Black Death in the Fourteenth Century. Translated by B. G. Babington, M. D. Many of our readers may be curious to learn what the black death of the fourteenth century means. The fictitious horrors of Defoe melt into nothingness when compared with its realities. It first appeared in China, but its exact nature is unknown. From China it passed to the western countries of Asia, where it shewed itself as the oriental plague, with inflammation of the lungs. It was thought to be carried to Constantinople, then the seat of the Eastern Empire, and the centre of commerce between the East and West, from the Northern coast of the Black Sea, after it had depopulated the countries between those routes of commerce. It appeared as early as 1347 in Cyprus, Sicily, Marseilles, and some of the sea ports of Italy. The remaining islands of the Mediterranean, particularly Sardinia, Corsica, and Majorca were visited in succession. In August of the same year it broke out in England ; where it advanced so gradually that a period of three months elapsed before it reached London. The Northern kingdoms were attacked by it in 1349. It would seem that unusual phenomena, violent convulsions of the earth, and unnatural and unwholesome conditions of the atmosphere, were observed before the outbreak, and during the continuance of this black death.

The signs of terrestrial commotions commenced in Europe in 1348, and the same drama of earthquakes, floods, failures of crops, and famine, was enacted to the terrified Europeans which had already been played on a more costly scale to the Asiatic nations. In the Island of Cyprus the plague had already broken out when a pestiferous wind spread so poisonous an odour, that many being overpowered by it, fell down suddenly and expired in dreadful agonies. German accounts say that a thick stinking mist advanced from the East and spread itself over Italy, and then followed the earthquakes, famines, &c. already alluded to.

But what was the disease—what its symptoms—what its character ? It was an oriental plague, marked by inflammatory boils and tumours of the glands, such as break out in no other febrile disease. From these boils, and from the black spots which appeared on the skin, it received in Germany its name of Black Death. These symptoms were not all found in every case. In many, one alone was sufficient to cause death, while some patients recovered, contrary to expectation, though afflicted with all. Symptoms of cephalic affection were frequent ; many patients became stupified and fell into a deep sleep, losing also their speech from palsy of the tongue ; others remained sleepless and without rest. The fauces and tongue were black, and as if suffused with blood ; no beverage could assuage the burning-thirst, so that their sufferings continued without alleviation until terminated by death, which many in their despair accelerated with their own hands. Contagion was evident, for attendants caught the disease of their relations and friends, and many houses in the capital were bereft even of their last inhabitant. Still deeper circumstances were connected with this pestilence, such as have not been felt at other times, " the organs of respiration were seized with a putrid inflammation ; a violent pain in the chest attacked the patient ; blood was expectorated, and the breath diffused a pestiferous odour."

In the West the eruption of the disease was marked by an ardent fever, accompanied by an evacuation of blood, which proved fatal in the first three days. Buboes and inflammatory boils did not at first come out at all, but the disease, in the form of carbuncular affection of the lungs, destroyed before the other symptoms were developed. In Avignon it is said that even the vicinity of those who had fallen ill of plague was certain death, and as a natural and usual consequence of contagion or a belief in it, parents abandoned their infected children and all the ties of kindred were dissolved. Such is the demoralization of pestilence.

After this period buboes in the axilla and in the groin, and the inflammatory boils all over the body made their appearance; but it was not till some months afterwards that some patients recovered with matured buboes, as in the ordinary milder form of plague. Boccacio, who was an eye-witness of its fatality in Florence, gives a lively description of it. It commenced here, not as in the East, with bleeding at the nose, a sure sign of inevitable death; but there took place at the beginning, both in men and women, tumours in the groin and in the axilla, varying in circumference up to the size of an apple or an egg, and called by the people pest-boils. Then there appeared similar tumours indiscriminately over all parts of the body, and black or blue spots came out on the arms or thighs, or in other parts, either single and large, or small and thickly studded. These spots proved equally fatal with the pest-boils, which had been from the first regarded as a sure sign of death. No power of medicine brought relief—almost all died within the first three days, some sooner, some later, after the appearances of these signs, and for the most part entirely without fever or other symptoms. The plague spread itself with the greater fury, as it communicated from the sick to the healthy, like fire among dry and oily fuel, and even contact with the clothes and other articles which had been used by the infected, seemed to induce the disease. As it advanced, not only men but animals fell sick and shortly expired, if they had touched things belonging to the diseased or dead. Thus Boccacio himself saw two hogs on the rags of a person who had died of a plague, after staggering about for a short time, fall down dead, as if they had taken poison. In other places multitudes of dogs, cats, fowls and other animals, fell victims to the contagion.

In Germany it was not so fatal as in other parts of Europe. In France, which it entered by Avignon, it was more destructive than in Germany, not more than two in twenty of the inhabitants of many places surviving. In England it was very fatal; only a tenth part of the inhabitants being reported to have escaped. There the eyes of the patients were considered as sources of contagion, which had the power of acting at a distance. In Norway not more than a third of the inhabitants were spared, and ships without crews were seen here, as in the Mediterranean, drifting about and thrown on shore. The plague did not appear in Russia till two years later than in Southern Europe. We fancy that we need not inform our readers that the causes of this, as of every other epidemic, are involved in impenetrable mystery.

Graphic Illustrations of Abortion, &c. A. B. Granville, M. D. The notice of this work has so much of reference to plates that it would not interest the reader to enter largely into it; add to which that it conveys no practical lessons. The same remark applies to the notice of Cruveilhier's morbid anatomy as respects reference to plates. The drawings are considered by the Reviewer as inferior to those of our own countrymen. Several cases are given of diseases of the fœtus, which are not without interest; but they scarcely lead to any practical inference.

JOURNAL OF THE ASIATIC SOCIETY FOR OCTOBER 1833.

This valuable record of Indian Science contains the usual quantity of interesting matter. The first article by Lieut. J. T. Newbold, 23d Regt. Mad. L. I. is an account of a visit to the Gold Mine at Battang Moring and summit of Mount Ophir; by which it appears that either the mine has fallen off, or that this is not the Ophir whose produce made silver of no account in Jerusalem in the days of Solomon. The 2d article is by Lieut. T. Hutton, (whom we are glad to see again in the field,) on the nest of the Tailor Bird; the author successfully maintains his point against Professor Rennie and Dr. Darwin as to all the leaves being living when sewn, and not as they supposed, two living and one dead. The 3d article is a continuation of the one in a former number by Mr. J. Jeffries on the laws that govern the two great powers Attraction and Repulsion; and we regret that our limits forbid entering into the author's views. The 4th article is an account of the Suspension Bridge of Beossi, constructed by Major Presgrave, a wonderful work of science and ingenuity; when we consider the difficulties encountered in working such masses of iron, by native workmen; and that the cost was less than that of those bridges constructed in Calcutta. The 5th article is on the Climate of Nagpore, by the Editor. The 6th, 7th, 8th, and 9th articles consist of the Proceedings of the Asiatic Society, Analysis of Books, Miscellaneous Notices, a Meteorological Register for September, kept by the indefatigable Editor in the Assay Office, Calcutta.

On the whole, this number of the *Journal of the Asiatic Society* is an exceedingly interesting one; and we perceive by notices to correspondents, that the next is not likely to be less so.

SELECTIONS FROM VARIOUS WORKS.

VACCINATION. BY W. CAMERON, ESQ.

The Tekhadars commence their operations in Calcutta in February, and continue them to May, when they proceed to the adjacent districts for the same purpose. In the same manner and about the same season, persons of a similar description issue from the districts of Tirhoot, Bhagulpore, and Monghier, and the city of Patna, and extend the practice over the provinces of Behar and Benares. I believe a similar course is pursued in the western provinces.

If therefore, the Tekhadars were not to be permitted, (as they have hitherto been,) to renew their operations annually, at this and other stations ; and if the influential native families were to unite, and come to the resolution of henceforth adopting vaccine lymph instead of variolous matter, a great diminution of mortality from small-pox would very soon be the result, and perhaps in the course of a few years this scourge of the human race utterly annihilated : for although the bulk of the natives seem still to regard with astonishing indifference, the very great blessing Government offers to them, through Vaccination, I think they cannot any longer question the efficacy of the practice, after the numerous proofs they must have observed in its favor, for the last seven and twenty years.

Notwithstanding the slow progress Vaccination has made amongst the native inhabitants, it still holds its ground, as the annexed annual returns abundantly shew ; though not to the extent which might have been reasonably expected, after the long period that has elapsed since its introduction into this country. Very few respectable natives in Calcutta, have their children vaccinated, but great numbers of the children of the lower orders are daily brought to the vaccinators attached to the department, for the purpose of keeping the discase alive, and for supplying constantly the European community with fresh vaccine lymph. I think they shew a greater willingness of late to avail themselves of the antidote than formerly ; more especially when under the influence of dread from small-pox prevailing epidemically.

The whole blame does not rest with the Tekhadars, for if the families who employ them would accept vaccination, they will have no hesitation in using it, so long as they get remunerated for their trouble.

Let the Magistrates be directed to assemble all the Tekhadars. Let their names be registered ; let them furnish a quarterly, or half yearly report of the number of children they inoculate : the naturc of the virus they use : the name of the person or persons from whose disease the virus is obtained : how many have died of late years of the natural small-pox, and how many after small-pox inoculation, and who attended them ? At the samc time let these persons be supplied with vaccine lymph, and requested to use it.

Compulsory measures will not do. The hostile manner in which Vaccination was attempted to have been propagated in 1803, 4, and 5, has done much harm ; should the people find themselves persecuted, even for their good, they would fly into the interior, and have their children inoculated.

So long as the Government Vaccine Establishments are kept open for the purpose of having Vaccination indiscriminately used without any charge, so long will the Tekhadars naturally be afraid of losing their trade ; and it would be cruel to deprive them of the means of subsistence, until they could be supplied with something in its place.

Vaccinators should bc reared and dispersed through the country, or attached to efficient Vaccine Establishments, under vigilant European superintendence ; and a small reward might be promised to the native vaccinators for evcry case they could establish of having used vaccine matter. The fee for inoculation is usnally given according to the circumstances of the parents, but they commonly charge the poor people one or two rupees per head.

The rapid improvement in knowledge and intellect, so powerfully manifesting itself in the minds of the higher classes of natives of Bengal, will very soon point out to them, the great superiority of Vaccination above every other discovery against small-pox ; and, I trust, ere long to see the vaccine practice adopted in the families of rank and influence in Calcutta, which will be followed gradually by its being generally propagated throughout the provinces.

It is now well ascertained, that small-pox inoculation is the great means by which variola is kept in existence ; and that Calcutta, (together with the other large and populous towns of Hindoostan, through their agency,) is the great generating focus of various infection, from whence it spreads to every part of the country. While this practice continues, it will be utterly impossible to extinguish small-pox, or to prevent the occasional alarm even of those who have been vaccinated. It is therefore indispensable to the interests of humanity, that the practice should cease ; but it is pretty evident, that while any pecuniary gain is derivable from small-pox inoculation, individuals will be found to practise it ; and while any prejudices remain against Vaccination, which it is their obvious interest to keep up and increase, there will be no difficulty in finding subjects to practice upon.

I observe in one of the latest reports of the National Vaccine Establishment, that by a legislative enactment, persons exposing small-pox paticnts are liable to a criminal prosecution at law ; and there are two cases quoted, where the persons convicted of that offence were severely punished.*

In consequence of the prevalence of small-pox at many of the stations under this presidency, during the last 12 months ; a circular letter was issued by the Medical Board, calling upon the Medical Staff to furnish information on the subject, and more especially desiring a statement of any cases in which variola had supervened on vaccination.

In the replies received, it appears that although variola prevailed extensively, and at some stations assumed the epidemic form, not one case is related of *genuine* small-pox succeeding to *perfect or effectual vaccination.*

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* See the cases of *The King* v. *Sophia Vantandillo*, 4th Maule and Selwyn's Reports, p. 73.—*The King* v. *Burnett*, 4th Maule and Selwyn, p. 292.

In many cases that had been previously vaccinated, a varioloid disease shewed itself, went through its course mildly, and disappeared in a few days. This shewed, that although Vaccination is not so perfect an antidote as it was once thought to be against small-pox, it is at least the best that is to be had. That this is the state of the fact, no one can resonably deny, who considers, for a moment, the degree of protection that was actually afforded in the cases mentioned in the replies to the Medical Board's circular, even in the midst of a desolating visitation of the disease.

A few fatal cases certainly did occur, but whether King's corps are rarely, if ever attacked by small-pox in this country, although a raging epidemic disease very frequently prevails in the immediate neighbourhood of cantonments :—the reason is obvious, regular returns are made of every well authenticated case of *genuine* Vaccination, and transmitted to the Army Medical Board in England.

In like manner public institutions are generally well protected from small-pox ; no person is admitted who has not undergone the perfect process of Vaccination.

The best time to take virus for vaccinating, is the 7th or 8th day of the disease, when the lymph is quite limpid or transparent. If, on the other hand, virus is taken on the 9th day, when it assumes a muddy purulent appearence ; the probability is, that a spurious pustule will be the result, passing off about the 8th day, without having any specific character of the true vaccine vesicle. On such occurrence, the operation ought to be repeated, with fresh lymph.

Small-pox itself is now and then far from being a perfect antidote against the recurrence of that disease : the letters submitted by the Medical Board contain a case, where a second attack of the natural small-pox proved fatal, although the patient had been deeply pitted by the first attack.

When a most virulent epidemic small-pox visited the city of Norwich, in the year 1820, and affected almost every one who was liable to contagion, only two died of the small-pox, out of ten thousand vaccinated persons* Had these persons been protected by variolous inoculation, conducted in the best manner, and in the most favourable circumstances, we are led to believe that at least 33 of them (1 in 300) would have died of the process intended to protect them.

This is the chief consideration to be urged with those who may hesitate about the mode of protecting their own children against small-pox. The still more important consideration, that no one can be protected against the natural small-pox by variolous inoculation, without the probability of his communicating the disease, in perhaps its worst form, to others, is one that ought to be urged not only to the parents of the children, but to the Government of the country !

There are times when the constitution resists the vaccine disease in a most astonishing manner, after repeated trials ; and more especially, when it is occupied with any other disorder, as fever, teething, diarrhœa, eruptive diseases, &c. &c. It is therefore desirable, before vaccination be performed, that children should be quite free from all disease ; and I think, the best age for vaccinating is from the 2nd or 3rd to the 5th or 6th month.

It is worthy of remark, that although the vaccine disease should have passed through so many thousands of individuals since its introduction into Bengal, in 1803, and it has never been renewed, its appearance and properties seem to have undergone no change. I have repeatedly examined the vaccine vesicle, in all its stages, both in the Asiatic and European subject ; and on comparing it with the best plates of Dr. Jenner and Dr. Willan, have reason to think that it corresponds with these in every essential particular. The areola in native children, is to the inexperienced difficult to distinguish, especially in those of a very dark colour : in those of a fair complexion, however, it is at once perceptible. Indeed, after a little experience, I have never found any difficulty in recognizing it even in the darkest children.

During the hot winds in the Upper Provinces, when the liquid virus is apt to lose its efficacy, and the disease itself to become extinct ; I have seldom failed to renew it, by transmitting from the Presidency the mature dry scab, which, under every variety of climate, is found to retain its specific power for many months.

Mr. Hutchinson has likewise described a simple and apparently efficacious mode of performing the operation, by inserting the virus by means of a recently armed ivory point, after having made the puncture in the usual manner. His remarks on the subject are contained in a letter to the Secretary to the Medical and Physical Society, under date 11th November, 1831.—*Cameron on Vaccination.*

CASE OF HYDROCEPHALUS.

" William Da C., æt : 20 months, previously a fine healthy boy, became the patient of my friend, the late Mr. Reay, on the 24th April, 1830. He then laboured under a slight remitting febrile attack, seemingly arising from the state of his digestive organs, attended with some cough, and occasional fits of screaming. Calomel with jalap, scammony, and antimonial powder, were successively administered, with relief to the symptoms, but still the remittent fever continued ; and Mr. Reay perceiving some tendency to squintings, began to dread that it would terminate in Hydrocephalus, and I was called in on May 14th, when I found the child very hot, with a rapid pulse ; the alvine discharges ill digested, and extremely offensive ; the abdomen, though not tumid,

* Vide Edinburgh Medical and Physical Journal, vol. xvii.

felt *doughy* or inelastic ; the tongue was furred ; there was no marked impatience of light ; the pupils regularly contracted ; but the child occasionally screamed without apparent cause, and the urine was scanty. He had cut all the incisors, the canine teeth, and four of the first molares ; smart doses of calomel and jalap, with a mixture containing squill, were prescribed, while the head was ordered to be kept cool by an evaporating lotion. 15th. Bowels freely moved, fever diminished, stools improved. 16th. At one this morning I was summoned, and found the child in a severe convulsive fit. Gums immediately freely divided over the concealed molares. Leeches to the temples. Enemata. The warm bath. Dose of castor oil. 17th. To-day decided symptoms of cerebral affection were present ; impatience of light ; frequent screaming ; convulsive twitches of the limbs. Leeches again applied, and a large blister between the shoulders reaching to the nape. Cold evaporating lotion to be kept constantly applied to the head. Calomel and jalap in repeated doses. 18th. Blister rose well, the cuticle was removed, and the raw furface dressed with *Ung. Hydrarg. Fort.* 19th. Symptoms nuchanged. The action of the bowels kept up by small doses of Hydr. c Cretâ three times a day. To-day there is a strong strabismus ; pupils much dilated, and nearly insensible to light. Yesterday and to-day all the other bad symptoms were increased ; screaming more frequent ; left side seemed paralytic, while the limbs on the right side were frequently and convulsively agitated. 20th. No improvement ; *cont. medicamenta.* 21st. Repeat the blister as before, and again dress it with mercurial oiutment. Give a dose of castor oil to purge the bowels. 22d. Bowels active ; omit the *Hydr. c Cretâ* ; if necessary give an enema. In the evening castor oil. Pulse, which had been rapid generally, now between 70 and 80. Omit the cold applications to the head. 23d. No improvement ; urine nearly suppressed ; eyes quite insensible to external objects, but he can swallow easily ; calomel and jalap purge ; enemata ; nitre whey. 24th. Moaning and screaming very distressing ; urine very scanty ; one side quite paralytic, the other constantly agitated by convulsive twitches. Repeat the blister, and dress it as before. Bowels rather costive. Castor oil and enemata. Omit the purgative powders. 25th. The child begins to be under the mercurial influence : blistered surface highly inflamed ; simple cerate substituted for the mercurial ointment ; enemata as before ; convulsive motions less violent. 26th. Less convulsion, *Cont. omnia ut heri.* 27th. Urine considerably increased. *Cont.* 28th. Some undoubted signs of improvement ; urine passed freely ; twitching of limbs and screaming less violent ; one of his front teeth loose ; gums swelled ; bowels freely open ; some griping. Omit the castor oil. A few drops of *Tinct. Camph. Comp.* to be occasionally given. 29th, 30th, 31st. Improvement progressive, but slow ; twitching and screaming much less frequent ; nape of neck much inflamed and discharging freely ; bowels open ; some griping ; urine copious ; the paregoric appears to soothe him ; anodyne at bedtime. June 1st. Favourable symptoms continue, but the eyes appear insensible to light, and the strabismus continues ; pulse below 70, rather irregular. Conceiving that the inflammatory stage had subsided, but that the ventricles were still loaded, diuretics were continued and a small blister was applied to the vertex, over the fontanelle, in the hope of promoting absorption. The bowels open, but much distended with flatus, for which a fœtid enema was given with relief. 2nd. Seems relieved ; an opiate was given to-day, which allayed the convulsive motions of the limbs. 3rd. *Repetantur enema fœtidum et haustus anodynus N. S.* 4th. Strabismus much diminished ; urine in large quantity. *Cont. omnia.* 5th. Blister on vertex repeated. Bowels bound. Castor oil. 6th. Evident improvement in every respect. He now can distinguish external objects. The loose front tooth was removed by the fingers from the lower jaw, without pain to the child ; its root was long, white and hollow. 8th. Eyes and limbs gradually recovering ; urine very copious. 11th. Child so far recovered that I discontinued my evening visits. An astringent lotion was prescribed for the mouth : the bowels being sluggish, a dose of castor oil was recommended every second day. After the 18th, I only saw him twice professionally ; Mr. Reay ceased to attend him on the 11th of July, and he was soon in vigorous health.

The boy remains quite well, and has no mark of having suffered from disease, except the loss of the two front teeth of the lower jaw, the second having been shed in the end of 1830. His countenance is naturally pale, but he has a healthy look ; his limbs are strong and muscular ; his habits active and lively ; his intellect very acute."—*Lancet, June* 1833, *from Case by Dr. Trail.*

MEDICAL JURISPRUDENCE—PHRENOLOGY.

" The following singular application of Phrenology in the medico-legal investigation of a murder, has recently taken place in Paris. Several years have elapsed since a female disappeared from her house in the Rue Vaugirard, and no information respecting her was obtained until a very short time since, when an intercepted letter led to a search for her body in the garden at the back of the house. A skeleton was there found, and a minute examination of it was directed by the police to be made. M. Dumoutier, Professor of Phrenology to the Society of Paris, was, accordingly sent for one evening by M. Orfila, without being told the object of the mission. Introduced into a room where were assembled the Procureur du Roi, Municipal Guards, Agents of Police, the suspected persons, and others, M. Dumoutier was desired to determine whether the bones

presented to him all belonged to one and the same individual of the human species, and to state his opinion of the sex and age of the individual to whom they belonged, and the period of time that the bones had been interred.

Having examined the skeleton with attention, and put aside some bones of animals, which had been mixed with them, he carefully scrutinized the head, and decided that the skeleton had belonged to a woman, that she was advanced in age, and that the body had been interred several years. But the surprize of the spectators was at its height when the Physician, continuing his remarks, commenced to speak of the character of the person whose skull he held in his hand, declaring that she was miserly, and of a violent temper, and adding other details, all of which were perfectly conformable with the known temper and character of the missing woman.

But two centuries ago, as the Crown Solicitor observed, a similar divination would have led its author to the stake. Nevertheless M. Dumoutier is no magician, but a distinguished pupil of Gall and Spurzheim. The facts cannot fail to excite the interest of those who believe in the truth of Phrenology, and the curiosity of those who doubt it."—*Lancet, June* 1833.

HARE LIP.

I may observe that it is by no means safe to operate at the moment of birth; the flesh is too soft, too readily divided by the needles; and the mortality is generally greater among new born infants than at any other period of life. It would be of consequence to operate very early to enable the child to suck; but this act in itself would obstruct the union of the parts. Children from four to five have just enough of reason to foresee and recollect pain, but are not rational enough to support it, and by making every exertion to escape, do their utmost to frustrate the operation. Sometimes we meet with a certain degree of docility in little girls, who are supported by their natural coquettishness and whose vanity is easily excited, but boys, being insensible to this motive, are completely intractable. I think then, that every circumstance renders the early operation preferable, say at three months. Life is then more certain, pain is soon forgotten; the infant can do nothing designedly to interfere with the operation; and the reunion of the parts occurs with wonderful rapidity.

Case. Operation Terminating Fatally.— In August last, a child æt: three months was received in the Hotel Dieu, with a double congenital hare lip. At the right side, the division occupied the depth of the lip, all the palatine vault and velum palati; but on the left it was less extensive. The central tubercle was inserted near the nasal spine, and it was deemed possible to make use of it for the formation of the new lip. It was separated from the long tubercle, which was cut out with scissars, and which contained the germs of two incisor teeth. The rest of the operation was deferred to another day. Blood was swallowed after the operation by the action of suction of the child, and it was too weak to be operated on upon the day fixed for finishing the operation, the median flap became gangrenous, and the child died.

Several circumstances, such as loss of blood and the stay of that fluid in the stomach, may consequently compromise the life of the patient; but a fatal termination is very rare. Blood, when swallowed, is never digested; in general it is returned by vomiting, but if it remains in the digestive tube it is unaltered, becomes a point of irritation and brings on pain and purging. Purgative medicines and injections are consequently indicated to remove it.—*Abstract from the Lancet, of Baron Dupuytren's Lecture on Hare Lip.* 1833.

POISONING.

Case drawn up by M. Orfila, abstracted from the Lancet of June 1833.

A man named Urbain X. inherited some property of a family who died soon after eating cabbage soup of symptoms of gastro enteritis; and he would have inherited the property of another family who were taken ill in the same manner, soon after eating some bread, which was made from flour which he had had an opportunity of taking up in his hand when shewn to him to give his opinion as to its quality, had they not fortunately recovered.

The bread appears to have been examined by four chemists, two at first and two afterwards; and although its taste left a peculiar acrid sensation which lasted a long time, and a dog was made sick by it, several times, the experimentalists came to the conclusion that it contained no mineral poison, nor could they point out any vegetable poisonous substance.

The Procureur General of the Maine and Loire, however, was dissatisfied with this report, and directed M. Orfila to examine the bread anew, and he detected a notable quantity of arsenious acid; his evidence turned the scale of justice, and Urbain was condemned to death.

The following were the experiments by which M. Orfila succeeded in detecting poison, where four preceding experimentalists had failed.

The bread was cut in pieces and treated with cold distilled water, the liquor filtered and tested by solution of sulphuretted hydrogen, when it became yellow, but not sensibly turgid. Drops of muriatic acid were added, but *it was only after some days* that a yellow precipitate was deposited. Had only 24 or 48 hours been waited, no precipitate would have taken place, and hence probably the preceding errors.

The precipitate was separated and washed repeatedly with distilled water; placed on a small filter and washed with very weak ammonia, by which the sulphuret of arsenic was dissolved, and among organic

matter left. This was repeated frequently; the ammoniacal solution was evaporated to dryness, the residuum mixed with a little charcoal and carbonate of potash; and toasted by holding the watch glass at a certain distance from the live coals. The watch glass was then powdered in a mortar, the powder put into a tube, the upper end of which was drawn out in a spirit lamp; when the part containing the mixture being brought to a red heat the metallic arsenic quickly appeared. Arsenic is recognized by its garlick odour, and by its facility of solution in warm nitric acid, which when evaporated to dryness leaves a whitish mass, soluble in distilled water, from which it may be precipitated of a yellow colour by treating the liquid when warm with liquid sulphuretted hydrogen.

Note.—To prepare liquid sulphuretted hydrogen, put into a phial or retort a paste made of iron filings and sulphur, add from time to time diluted sulphuric acid, upon a lamp and receive the gas through a bent tube, into a bottle inverted in a bowl or pnuematic trough full of water; when as much as two-thirds of the water in the bottle is replaced by the gas, shake up the remainder with the gas so that the latter may be absorbed, when the liquid will be ready for use.—*Ed. Ind. Jour. Med. Science.*

NEW MODE OF ANALYZING ARSENIC.

"A portion of the arsenicated substance is to be mixed in a platina crucible with a little muriatic acid; a piece of zinc foil or wire is then to be dipped into the mixture, and stirred about gently on the bottom for one or more minutes, when the platina will be found covered more or less extensively with a crust of metallic arsenic, of a dark grey colour, if perfectly deoxidated, but usually of various shades of grey, purple, or brown, from partial oxidation apparently of the internal surface. This metallic crust rises readily over the spirit lamp, in alliaceous vapours of white arsenic, which can be easily collected by covering the crucible with a piece of glass. The crust of oxide thus received on the lower surface of the glass, yields, though in very minute quantity, unequivocal indications of its nature, on being moistened with the ammoniated copper and silver solutions.

"The following is a summary of a few recent experiments made according to this method. 1. I mixed a small quantity of white arsenic with muriatic acid in a platina capsule, applied the zinc, and after stirring it about for a few minutes, poured away the acid fluid. I then washed and wiped the capsule, and held it covered with a piece of glass for a few seconds over the spirit lamp: the arsenic quickly rose in alliaceous white vapours, and settling almost wholly on the glass, was immediately tested with the silver and copper tests. The result was the formation of yellow and green arsenites of silver and copper. 2. I mixed a few drops of an aqueous solution of arsenic with muriatic acid in a capsule, applied the zinc as before, emptied the capsule, washed it with muriatic acid, and afterwards with water, rubbed and dried it, and applied the spirit flame. The sublimate received on glass yielded with the silver and copper tests the arsenites, as before. 3 and 4. I treated some Scheele's green not previously separated from the mother water, and some Fowler's solution in like manner. 5. I boiled three grains of arsenic with half a pint or eight ounces of porter down to syrupy consistence; I then concentrated still further a portion of this by boiling it in a platina capsule: this last I treated with muriatic acid and zinc, as above, and having emptied, washed, rubbed, and dried, as in Exp. 2, sublimed the poison on glass: the sublimate readily yielded the arsenites. 6. I boiled three grains of arsenic with half a pint or eight ounces of pea-soup, strained through a linen cloth, and evaporated to one fourth. I concentrated still further half an ounce of the residuum in a capsule to about a drachm. From this residue, treated with acid and zinc, I procured a crust insoluble by cold muriatic acid, and yielding over the spirit flame a garlic smell, white vapours, and a sublimate, from which I obtained the arsenites, as above. 7. I mixed about three and a half grains of arsenic with eight ounces of water, to which I added about eight ounces of beef, bread, grease, potatoes, cream, cheese, and a little wine. I boiled the mixture for about half an hour, strained it through a linen cloth, and evaporated the residue to the consistence of honey: a portion of this after having concentrated it further in a capsule, I treated with zinc and acid, and having sublimed it as before, obtained the same results as in former experiments."

RHEUMATIC GOUT.—"MINERAL MAGNET."

C. W. aged 45, a journeyman printer, was afflicted for four months with rheumatic gout so severely as to incapacitate him for work: he had been several weeks under medical treatment without finding much relief.

His countenance was pale and anxious, skin cold and clammy, pulse 65 and small, tongue slimy and spongy; numbness in the head; sleep broken by pain in the limbs, appetite bad; frame much emaciated, great constitutional debility, the result of long suffering.

He complained of a scalding sensation in the joints of the ancles, right knee, and left wrist, which were stiff and swollen, but not inflamed. When standing or walking he felt pain in the feet and ancles: and he was three hours in hobbling to Dr. Blundell's house, a distance of two miles.

On the 8th June, the magnet was passed six or eight times round the joints, when the patient was immediately relieved, rose from his seat, and walked two or three times round the room; and he stated that he had not been so easy for some time. His diet was directed to be more generous. On the 9th he remained free from pain until the evening, when he was again mag-

netized, with the same good effect as before. On the 10th he was much better, rest good, tongue cleaner, pulse stronger; ancle less stiff and painful; magnetized again with success. On the 12th and 14th magnetized again and relieved.

He continued getting better till the 19th, when he returned to his work, and remained well up to the cessation of the report on the 2d of July.

Two other similar cases were also treated with like success by the magnet, by Dr. Blundell.—*Abstract of a communication of Dr. Blundell to the Lancet, July* 1833.

TOOTH ACHE AND TIC-DOULOUREUX—RELIEVED BY THE MAGNET.

"The instrument is of the horse shoe form, about ten inches in its long axis, and five in its short, composed of five layers of metal, the central being the longest, and the whole bound with stout riband. The patient was at the time apparently suffering considerable pain, and unable to use his hand. The *north* pole of the magnet was gently passed five or six times down the sides and back of the middle finger, and then rested on the central joint. The result was, such a cessation of suffering, that he could gnash his fingers into the palm of his hand with ease and comfort, and he declared himself to be entirely relieved. The power of the instrument, however, did not cease here. Dr. Blundell showed that it possessed the means of reproducing the pain in the most intense form. The *south* pole of the magnet was directed along the finger. At the third pass the patient began to bite his lip, and close his eye with an expression of pain. At a few passes more his chin was involuntarily buried in his breast, and his wrinkled features evinced the acutest suffering. This was allowed to continue for a few seconds, when the *north* pole was again presented to the finger, and the agony speedily subsided. The spectators then left the man with a countenance perfectly tranquil.

At the extremity of the ward lay an elderly lady, a martyr to *tic-douloureux* in the lower jaw, extending to the ear, and affecting a large portion of the head. The disease, she stated, was of more than nine years' duration, and had never ceased to afflict her for a day during that period up to her entrance into the hospital. Her appearance was proportionably miserable. The magnet had also been applied in her case, and with similar advantage, as she stated. On the present occasion, it was found, on approaching her bed, that she was that morning free from pain, and the aid of the magnet was not needed. "But cannot you show its power by producing the pain?" inquired a by-stander. The suggestion was acted on. The *south* pole of the magnet was passed from the centre of the chin along the lower jaw-bone up to the ear. At the third pass the poor woman indicated that the *tic* was commencing, and in a few seconds more the affection was experienced intensely. The process was then stopped, as the experiment was carried far enough to satisfy all present of its consummation, and after a brief space the presentation of the *north* pole wholly freed the sufferer from pain. The operator subsequently stated that by continuing the passes he could have carried the pain on to the production of delirium.

There is a female patient in another ward who had suffered intense tooth-ache for three months, when, a fortnight since, according to her own evidence, which we have no reason to doubt, it was instantly cured by one application of the magnet, through the medium of a key, and had not returned in the slightest degree up to the period of the visit on Tuesday last.

These are very interesting facts. We present them to our readers unaccompanied by comment. The specific name given to his instrument by Dr. Blundell, is that of "Mineral Magnet." How far its application to disease admits of extension, we are at present ignorant."—*Lancet, June* 1833.

EXTEMPORANEOUS VESICATION.

M. Pigeaux recommends the following method. Apply a dossil of lint, well wet with spirit of wine, to the part, and set fire to it. In a few seconds the epidermis will be found to be detached, and we can then remove it with our nail. The operation is very speedy and not painful.—*Revue Medical.*

ENLARGEMENT OF THE TONGUE.

"William Durling, aged 30, was brought to Bromley, (Kent) from a village four miles distant, in the evening of June 18th. His appearance was truly distressing; his face and ears were of a dark purple colour; he breathed with difficulty; he could not speak, and had not been able to swallow any thing for twenty-four hours. All these symptoms were occasioned by an enlarged state of the tongue. He first perceived the swelling on Sunday evening the 16th. It had continued to increase from that time. His wife attributed it to his having remained for some hours in wet clothes. Upon examination, the tongue seemed prodigiously swollen and hard, and very painful if pressed. The skin was hot, and the pulse quick. We scarified the sides and under part of the tongue very freely; about five ounces of blood were quickly obtained, from which he experienced much temporary relief. He was desired to hold warm fluids in the mouth constantly, and to apply a large linseed poultice all round the throat.

Early the following morning a message was brought that he had passed a miserable night, and it was supposed that he could not survive many hours. On our arrival we found him in great distress. He had not been able to swallow one drop of any liquid, and felt as if he should be suffocated every moment. We again made several deep incisions in the sides and tip of the tongue. The blood flowed very

freely to the amount of eight ounces. A large blister was applied from ear to ear. Two drops of croton oil were got down with great difficulty. At 7 P. M. he was better; was able to speak so as to be understood, and had swallowed some milk. He had vomited and the bowels had been very freely opened.

On the 20th he was better in every respect. The swelling in the tongue was considerably diminished, he was able to swallow broth and milk, and had slept for hours.

On the 21st he was almost well.

P. S. I feel anxious to lay this case before my medical brethren, as, in the course of forty years' practice, I have never met with any thing like it; and I have not been able to find any medical writer who treats of such an affection satisfactorily."

(Signed) R. T. TAYNTON.

London Medical Gazette, July 1833.

DISLOCATION OF THE HUMERUS BACKWARDS ON THE DORSUM OF THE SCAPULA.

Dislocation of humerus backwards is so rare that Dessault never met with it: and hise ditor, Bichat, declared that no instance of its occurrence was recorded, implying a doubt of the fact itself. In this respect Bichat was wrong: amongst others, Kirkland saw and reduced two cases of it. Boyer was formerly of the same opinion as Bichat, having remarked that "there is one species of dislocation of the humerus which though described, and the possibility of it made manifest, we are not acquainted with a single instance—it is the dislocation outward or backward." But further observation has shewn this experienced practitioner one example of this dislocation; and Sir A. Cooper has met with it only twice in the course of thirty-eight years practice.

An instance of this dislocation lately occurred at the Middlesex Hospital, in the person of Mary H——, æt: 49, of spare make, who presented herself on the afternoon of June 4th, shortly after an accident which had disabled her right arm. Mr. Gill, the house-surgeon, having recognized the nature of the accident, called the Surgeon of the week, Mr. Arnott, who happened to be in the hospital at the time, that he might have an opportunity of witnessing the unusual occurrence.

The nature of the injury was evident to the eye, without the aid of the sense of touch. The projecting head of the humerus was seen on the dorsum of the scapula immediately below its spine, with an excavation in front, under the acromion, in the natural situation of the joint. The arm hung by the side precisely as the left or sound one, and was not directed forwards and outwards, as represented by some writers in describing the symptoms of this dislocation. The head of the bone could be made, and was seen to rotate in its new situation on the back of the scapula.

The accident occurred in the following way:—The patient was reaching down a box from the top of another which stood on a bedstead. In doing this her arm was extended upwards and forwards, the hand being placed so as to receive the box, when this suddenly slipped off the other, and she felt her right arm give way and fall powerless by her side, the box at the same instant coming to the ground.

The reduction was thus effected:—The patient was seated on the ground, with the sound side close to a wall, in which was a staple on a level with the shoulder, to which the apparatus for fixing the trunk and scapula was attached. Extension was made by two men by means of a cloth attached to the humerus, the direction of which was outwards, forwards, and a little upwards, the surgeon standing behind the patient, and retaining the scapula from yielding forwards. After hanging on for some time, and then by a more forcible extension, the head of the bone slipped into its socket with a snap. An effort at reduction by one man on the towel had previously failed.—*London Medical Gazette, June* 1833, *Middlesex Hospital Report.*

TWO CASES OF ÆSOPHAGOTOMY.

A soldier, while eating soup, accidentally swallowed a bone. He applied immediately for assistance to the surgeon of the regiment, and a variety of means was tried to remove it, but all in vain. On the fourth day after the accident, he was put under the care of M. Begin. By introducing a caoutchouc sound down the pharynx, he found that it passed about seven or eight inches, and was then obstructed by a foreign body, which was hard, and immoveably fixed in its place; this seemed to be in the æsophagus, immediately below the level of the cricoid cartilage. No forceps could reach this depth, and the severe pain caused by the firm pressure of a probang, forbad any attempt to push the bone down into the stomach. The patient experienced much anxiety and distress in his breathing. It was proposed to give him an emetic, but the reporter states, that "la-deglutition etoit trop difficile, et ce plan ne put recevoir d'execution" (the wherefore is not very obvious.) On the sixth day, the saliva was mixed with purulent matter; but the bone stuck as fast as ever, and now three grains of tartrate of antimony were exhibited; the patient vomited freely, and felt himself relieved; the probe did not, however, indicate any favorable change in the position of the bone. The respiration was moderately easy, and he could swallow fluids with little inconvenience. The quantity of pus which escaped from the mouth had increased in quantity for some days past.

As all means to dislodge the bone had been tried without effect, M. Begin resolved on the 12th day after the accident, to attempt its extraction, by cutting down upon the æsophagus. An incision was made between the trachea and the inner

margin of the sternomastoid muscle, extending from the sternum to the upper edge of the thyroid cartilage, the omohyoideus muscle was divided across, the trachea drawn to the right side of the wound, and the carotid artery, jugular vein, and par vagum, to the left; a branch of the superior thyroid required the ligature. On carefully continuing the dissection, a drop of pus followed the stroke of the scalpel; a director was then carried deep into a large sac, lying close to the gullet, and a bistoury carried upwards and downwards, so that the anterior parietes of the sac were divided to nearly the extent of the outward wound; a large quantity of pus mixed with shreds of cellular substance flowed out; the left fore finger was now introduced, and the thin intervening septum of the walls of the æsophagus distinctly felt; by gently rubbing and pressing this, it gave way, and the finger passed into the gullet itself; still no foreign body could be found, a mouthfull of drink was given, and this escaped from the wound. The opening in the æsophagus was cautiously enlarged by the bistoury; a large vessel, probably the superior thyroid, sprung; the bleeding orifice could not be found, but was at length secured by passing a needle fairly round and thus enclosing a button of the surrounding parts in the ligature, the finger being now passed as deep as it could be carried, felt the bone, impacted in the tube of the æsophagus, nearly opposite the upper piece of the sternum; a bent forceps was then introduced, and attempts were made to lay hold of the bone; but in every attempt, it seemed that the walls of the æsophagus got included between the blades. A blunt pointed tenaculum could be used more easily, by inserting it round the lower surface of the bone, and then gently dragging it upwards, till at length it was fairly extracted; a quantity of pus and of sloughy cellular substance escaped at the same time. The operation occupied 25 minutes. Absolute abstinence was enjoined, and the mouth was only moisted occasionally, to relieve the thirst; on the following day, an elastic gum tube was passed into the stomach, and some broth given. The progress of the case was altogether most favourable; the wound gradually healed, the food ceased to escape by the orifice, and the patient ultimately quite recovered.

Case 2. B. J. was brought to the hospital on the 30th Feb. 1831. On the preceding day he had swallowed a bone, which stuck in the gullet, and could not be removed. An emetic had been given, and although free vomiting was induced, no benefit followed, so firmly was it impacted, that no tugging with forceps, or with probangs passed beyond it, was of any avail. It did not altogether block up the tube, for small probangs, or rather probes curved at the end, might be introduced further down than it lay, although with some difficulty; considerable purchase might therefore be employed, during the withdrawal of these; but in spite of every effort, the foreign body could not be dislodged. The respiration and deglutition being easy, the surgeons were unwilling to resort to an operation at present, as there were good grounds for expecting that the bone might be gradually loosened, if not by the motions of the canal, at least by suppuration. But these hopes were speedily found to be fallacious, and the patient suffered such distress that he was urgent that something be done for his relief. On probing the æsophagus, it was thought, that the bone had descended somewhat as it could not be seized so easily as hitherto with the forceps. M. Begin therefore resolved to operate, and the operation was performed on the eighth day after the accident. The steps of it were very similar to those in the preceding case; the integuments were freely divided, the trachea and æsophagus separted from the sheath of the great cervical vessels, and then the finger introduced deep into the wound; the bone was felt through the walls of the gullet, somewhat below the level of the upper edge of the sternum. The bistoury was carried along the finger as a probe, in order to avoid any injury to the inferior thyroid vessels, and a small opening was made into the æsophagus; this was gradually enlarged, till the finger could enter freely into the tube; the bone being now felt distinctly, a pair of long and curved forceps was introduced and with much difficulty the bone extracted. Not above two table spoonsful of blood were lost.

The subsequent treatment was the same as had been so successfully adopted on the former occasion; all the food was introduced by means of a stomach tube. On the 4th day, a heathy suppuration was established, and the wound slowly closed. He was discharged in six weeks perfectly well.—*Journal Hebdom: Periscope Medico, Chirurgical Review, July* 1833.

LITHOTRIPSY. CURE OF STONE IN ONE SITTING. BY W. B. COSTELLO, ESQ.

"The pages of *The Lancet* already contain several cases of Lithotrity in which I have performed a cure in *one sitting*, and I send you another in which relief was obtained by a single application of the instrument, the duration of the operation not exceeding three minutes. The subject of this case is Mr. Rorke, of Usher's Quay, Dublin, aged 70, a man of full habit, and suffering occasionally from gout. About eighteen months since he suffered great pain in his loins, and voided some small calculi. In October last the lumbar pains increased, and extended to the bladder, the urine becoming bloody: in fact he had all the symptoms of stone in the bladder, with this peculiarity, that he could neither walk across his room nor stand upright. He remained in this state until the 20th of April last, when he came to me. The existence of a stone in the bladder had been ascertained previously to his leaving Dublin by Mr.

O'Reilly, a distinguished surgeon and lithotomist of that city, who did me the honor of placing him under my care. I operated on the 21st of April. The bladder was capacious and columnated; a small stone was felt at one of the posterior angles of the trigona, apparently fixed in the orifice of the ureter. The instrument employed was a small, short-curved percussor, which being inverted, its blades were brought together on the stone and the calculus was thus detached from its situation. My next step was to secure it in the instrument, and then to crush it; which I did with my hand only. The patient uttered no complaint during the operation. In the course of the next twenty-four hours he voided two small entire calculi of the size of a wren's egg, and began to use his feet without experiencing the horrible pains which had for six months before debarred him from all such exercise. On the next day some fragments were voided, and he felt himself quite well. On the third day he had great pain in making water, the pulse became frequent, the urine high-coloured and glairy, though not fœtid, fragments and *debris* of stone were still passing; the use of the copaiba mixture had increased the frequency and pain of micturition, the tepid hip-bath was used at night, and he had an opiate suppository; the pain in the urethra and the scalding still continued. Taking his gouty diathetis into account, and seeing no reason why this morbid principle might not invade the urinary apparatus, I ordered Liq: Opii Sedativ: m. x cum m. xxx. Vini Colchici, and all his pain ceased in a single night. The urine became natural, and he returned to Dublin on the 8th inst. after having walked and amused himself about London and its environs for a week.

From the circumstance of the two small calculi being expelled whole, immediately after the largest had been detached from the extremity of the ureter, I conclude that they had been imprisoned behind it in the ureter. If it were not so, they might have been expelled long before. If this supposition be correct, it may explain the circumstance of his inability to walk without excessive pain.

This case gives token of the triumph which lithotrity is destined to achieve, when its application shall be more extensive, and it is resorted to at a more early period of the affliction."

7, Parliament Street, Westminster, May 24th, 1833."—*Lancet, June* 1833.

ON A METHOD OF OBTAINING HOMOGENEOUS LIGHT OF GREAT INTENSITY. BY H. F. TALBOT, ESQ. M. P., F. R. S.

As it is a desideratum in optical science to procure *perfectly* homogeneous light of sufficient brightness for many important experiments, I am glad to be able to communicate a method which in a satisfactory manner supplies that deficiency.

It is only requisite to place a lump of common salt upon the wick of a spirit-lamp, and *to direct a stream of Odygen gas* from a blowpipe upon the salt. The light emitted is quite homogeneous and of dazzling brightness. If instead of common salt we use the various salts of strontian, barytes, &c. we obtain the well known coloured flame which are characteristic of those substances, with far more brilliancy than by any other method with which I am acquainted.—*Philosophical Magazine July* 1833.

NEW GENUS OF CARNIVORA.

The new genus proposed by Mr. Ogilby connects the family of the *Civets* with that of the *Dogs*, participating with one in its organs of mastication, and with the other in those of locomation, and consequently ranging with *Proteles*, Isid. Geoff, as a second genus, intermediate between these two groups. *proteles*, however, partakes in some degree of the characters of the *Hyœnas*, while *Cynictis* is more immediatley interposed between the *Dogs* and *Ichneumons*, to the latter of which it bears a pretty close resemblance in external form. The generic characters may be thus expressed:

CYNICTIS.

Dentes primores, $\frac{6}{6}$ laniarii $\frac{1}{1}$, molares $\frac{6}{5}\frac{6}{5}$, quorum utrinque utrinsecus tres priores spurii, quartus carnarius, sequentes tuberculati.

Pedes digitigradi, digitis 5-5, unguibus falcularibus longis fosoriis.

Cauda longa, comosa.

Genus inter Ryzænam et Herpestem intermedium, et dentibus et digitorum numero.

CYNICTIS STEEDMANNI.—*Cyn, rufus, dorso saturatiore, genis, collo. lateribus, caudaque rufis griseo intermixtis; caudœ apice sordide albo.*

Long. *corporis* cum capiti 1 pes, 6 unc, *caudæ* 1 pes; *capitis*, a rostro ad anriculæ basin, $2\frac{1}{2}$ unc; *auriculæ*, $\frac{3}{4}$; *auriculæ* latitudo, $1\frac{3}{4}$. The general colour, as well as the whole external appearance of the animal, is that of a small fox.—*Philosophical Magazine, July* 1833.

ORGANS OF CIRCULATION IN THE CROCODILE.

M. Geoffroy St. Hillaire read a paper on the very admirable "tableau," entitled "Circulation of the blood in the human fœtus compared with the circulation in the four classes of vertebrated animals," which was recently presented by M. Martin Saint Ange to the Academy of Sciences. At present we shall confine ourselves to one topic only, that of the organs of circulation in the crocodile. Before the researches of M. Ange, it was believed the heart of this gigantic lizard was provided with but one ventricle, divided indeed into three compartments, having numerous orifices in their partitions, and receiving the blood from the right and left auricles, as in the tortoise, where also valves are placed to prevent its return, and that from these different compartments three great arteries issued, viz. the

right and left aorta, and the pulmonary artery.

Now all this description is ascertained to be erroneous, for the heart of the crocodile most closely resembles that of the mammalia; it has two auricles, and two ventricles, and between these cavities there are distinct and perfect septa. So far the resemblance is complete; but upon examining the organs still further, we find that a large artery springs from the right ventricle at the side of the pulmonary trunk, and communicates by a very short anastomosis, with a branch proceeding from the left ventricle; thus a mixture of the blood from the two sides is effected, but not until the ascending trunks which supply the head are given off; pure arterial blood is therefore sent to the brain, organs of sense, &c. and mixed blood to all the other organs of the body. This discovery of M. St. Ange is most interesting in various points of view, but in none more so than as it most beautifully and unexpectedly illustrates the science of "teratology" or of monstrosities. The eminent English Anatomist, Cowper, has recorded the following observations. In the bodies of two young children, he found that the aorta, after having formed its arch, and given off the subclavians and carotids, was reduced to an exceedingly small size, nay even partially obliterated, until it was joined by a large branch from the pulmonary trunk; this monstral, or adnormal condition in man, is therefore the normal condition in the crocodile. Before M. Ange's discovery, the preceding cases of Cowper were the only examples of anomalies in the vascular system of man which had not their repetition or type in the regular or healthy state of some of the lower animals. That principle, or axiom of philosophical anatomy, that all the "vitia' of the conformation, and of the arrangement of the circulating apparatus in man and in the high animals are analogous to the normal structure of beings placed lower in the Zoological series, is thus surprisingly confirmed. To compensate for the deficiency of arterialized blood in those parts, which are situated posterior to the heart, or nearer to the tail of the animal, there is a beautiful mechanism, the discovery of which is due to MM. Saint Ange, and the younger Saint Hilaire. They found a set of tubes, which, opening outwardly close to the recto-sexual passages, penetrate directly into the cavity of the peritoneum; by means of these, air, or aerated water may enter and come into contact with certain congeries of blood vessels in the abdomen; thereby oxygenating their contents in the same manner as the blood in the bronchial vessels of fishes is arterialised. A subsidiary or local respiration is thus established; and that too, be it remembered, in a part of the body where very important functions, as those of generation, &c. have their seat. These trachea or spiracula have received from the discoverers the name of "peritoneal canals." They have been found also in the testudinata; and are either "aquiferous" or "aeriferous," according to the medium in which the animals live. Analogous, although considerably modified, passages exist in some of the higher animals, as for example in the monotremata and marsupiata.

The distinguished reporter anticipates from the discovery some highly important and curious results in the field of philosophical zoology.—*Periscope Medico-Chirurgical Review, July* 1833.

EMPHYSEMATOUS TUMOUR.

Mr. R. of a sanguine and nervous temperament, good health, sat down quietly in an arm chair, and throwing his head back to rest it, he felt a cracking noise and a little pain, on the right side of the neck. Immediately a tumour formed in the part as large as two fists, producing great anxiety, sickness, and partial loss of consciousness. His friends thought he was labouring under apoplexy and were desirous of getting him bled, but he soon became conscious and the swelling diminished. He took sugared water, remained quiet for three hours, and returned home. Dr. C. saw him at 7 in the evening, and found him in bed with a face red and wet with perspiration; heaviness in the head; pulse large and full, beating 88.

On examination where the tumour had been, at the anterior and inferior part of the neck, inside the sterno and clavicular articulation; this side of the neck was found fuller and softer than the other; and on pressing in the direction of the trachea a deep seated pain was felt. The patient complained only of an acute, circumscribed pain in the middle of the right breast, a sense of weight in the epigastrium, difficulty of breathing in the right side, and much anxiety. When somewhat restored and questioned, he spoke with vivacity; but became suddenly pale, his voice faltered, and the tumour again appeared about the size of an orange. A cold sweat succeeded to the heat previously experienced; he made repeated attempts to vomit; the respiration became difficult and intermitting, accompanied by severe pain upon the surface of the right breast, and the lower part of the neck. He sat up in bed, leant his body forward, and declared that he felt himself to be dying. This continued several minutes, the countenance presented an alarming aspect; the tumour had much enlarged, and gave to the neck the appearance of a large goitre; the skin covering the tumour retained its natural temperature.

These symptoms showed that the tumour arose from a circumscribed emphysema, caused by probably a very small rupture of the trachea. The patient was directed to remain quiet and silent, to avoid quickening the respiration: an anodyne was given, and a cold aromatic liniment and a bandage were applied to the tumour; whilst every endeavour was made to rouse the sinking courage of the patient. His night was sleepless; but the friction was repeated early next morn-

ing, and the tumour, heaviness in the epigastrium and pain in the chest gradually disappeared, so that after a week's rest, Mr. R. was able to perform his usual business; and during the four succeeding months his health was perfectly good.—*Abstract from the Collectanea of the London Medical and Physical Journal, for June* 1833.

EXTRAORDINARY INQUEST.

A child was stated to have been buried in the paddock of a Mr. Ward at Horncastle. Upon which it was dug up, and inspected by a Dr. Veitch, who with a zeal for justice rather unchecked by discretion, boldly stated that in his opinion it had been destroyed, or was a murdered child, or words to that effect; and that he would have an inquest on the body. An inquest was accordingly held (though not through the instrumentality of Dr. Veitch) when it appeared by the evidence of the midwife who delivered the mother, by that of Mr. Ward himself, and by that of several other witnesses, that the child was of monstrous birth; that it had died immediately or within a few minutes of being born: and that it was given by the parents to Mr. Ward who had kept it for two years and a half in spirits. Mr. Ward also stated that the spirit having evaporated, the preparation was spoilt and therefore he was led to bury it.

The jury of course very properly returned a verdict "*that the child died by the visitation of God, and not in consequence of any hurt or injury received from any person or persons whatsoever.*"

After the verdict was delivered by the jury, an examination of the body took place, when it was found without brain and spinal marrow, that the lungs were firm and solid as the liver, and consequently that the child had never breathed!—*Abstract from the Lancet*, 1833.

ERGOT OF RYE.

Ergot of Rye has been employed for the last two years by H. A. O'Slea, Esq. Surgeon, Aghada Dispensary, Cloyne, in cases of hæmorrhage in the male subject. He states that he has met with invariable success in doses of "ten grains every second hour in ordinary cases; but when hæmorrhage was very alarming, every hour for six or eight hours consecutively."—*Lancet, June* 1833.

MR. ROBERTSON ON DRY CUPPING.

Mr. Robertson, an intelligent Surgeon residing in High Holborn, has published some interesting cases of pain depending on various causes relieved by dry cupping. The cases in which he would recommend it are those in which the pain is dull though severe, deep-seated, chronic, not much increased by pressure, or has refused to yield to ordinary means.

The way in which he generally employs the remedy is to throw a very minute bit of paper touched with æther or turpentine, lighted, into a large glass or tumbler, and press it down in the usual way. This is a very effectual, and a very convenient method of obtaining the requisite exhaustion, and is attainable when the regular cupping apparatus is not. We will select a case out of eight related by Mr. Robertson. It is the most interesting and perhaps the most satisfactory.

Case. Pain in the left umbilical region.

A very interesting young lady, the wife of a friend of my own, left ——— for Edinburgh immediately after the marriage ceremony was performed; and when about half way was seized, while in the carriage, with most violent pain in the left umbilical region. Her husband managed to get her by easy journies to Edinburgh, where she remained about three weeks, and was bled, blistered, purged, and put through all the ramifications of the strictest antiphlogistic system.

At length she was obliged to be brought home by short stages, a distance of 40 or 50 miles; and was ultimately relieved by turpentine enamata, which brought away some discoloured hardened fæces. Her menstrual periods had for years been attended with extreme pain. During two years which followed marriage, she was said to have had two miscarriages. During the third she miscarried again and was getting round, when I was suddenly sent for, on account of an alarming pain *in the very spot which had formerly been so productive of suffering*. She could not account for it; she had been lying quietly in bed, and had been eating and drinking nothing to produce it. The lochial discharge went on as usual, and her bowels were natural, as she had, ever since her former attack, used Maw's instrument. Leeching was proposed, but to this I objected, on account of the loss of blood she had sustained so lately and from the effects of which she had not as yet recovered.

I determined first to try dry cupping: she assented, and as the things are always at hand, in five minutes she was so well as to be able to joke with her husband and me about "the very troublesome wife" the former had. It never returned. —*From the Lancet.*

EXTIRPATION OF A DISEASED OVARY.

A. D. aged 31, mother of four children; during her last, (the fifth gestation,) the abdomen was so enormously distended that it was thought that she was pregnant of twins. The size, however, was not much abated after delivery, and it was then ascertained that it was caused by an enlarged ovary on the right side. A trocar was introduced, and 14 lbs. of a serosity were drawn off; the limits of the swelling could now be more easily defined: and as it felt hard and fluctuating, the trocar was inserted at another point, and 12 lb. more of a watery fluid were evacuated. Dr. Ehrhartstein decided on its extirpation, which was performed eighteen weeks after delivery.

On exposing freely the diseased mass it was found to have contracted adhesions to

the surrounding parts : these were cautiously severed, and the tumour extracted in fifteen minutes from the commencement of the operation. Only three vessels required ligatures. Severe febrile symptoms supervened, and lasted for several days. On the eighth day a profuse discharge of bloody serum and of gas escaped from the wound, with great relief to the patient. In nine weeks the wound had healed completely.

The diseased ovary weighed 12 lb. and when cut through exhibited numerous cavities, partly filled with a serosity. The three vessels which had been divided, were of the size of writing quills.—*Periscope Medico-Chirurgical Review, July* 1833.

DANGER OF VENESECTION IN WEAK EPILEPTIC FEMALES.

"It may be laid down as a rule of practice, that in debilitated, nervous, and hysterical females, however violent the congestion of an organ may be, the attempt at curing this congestion by either general or topical bleeding is injudicious. The truth of this is strongly confirmed in cases of epilepsy in weak and nervous habits, though no disease is more clearly dependant on cerebral congestion than the epileptic fit. Thus, a lady concerning whom I was consulted by Mr. Kirby, had been liable every third or fourth month to a violent fit or epilepsy for the last twenty-five years. About a year ago, a young practitioner imprudently used the lancet, and she has since been subject to an attack every third or fourth week."—*Lancet.*—*From Dr. Greaves. Dub. Jour.*

WRY NECK.

Mathew Cullen, aged six, Dunbar, admitted November 2, 1833. The head was much inclined to the left side, and could not be elevated owing to the rigid contraction of the left sterno-mas-toid, the sternal part of which felt like a tense cord. The complaint had existed upwards of twelve months, and had resisted blisters, with other similar means of remedy. The introduction of needles having been tried without any benefit, it was thought necessary to divide the contracted part of the muscle. This was effected by entering a sharp-pointed narrow knife a little nearer the trachea than its sternal margin, about an inch above the clavicle, and then pressing the blade against the tense fibres, a sudden snap, which shook the patient's frame was immediately perceived, and all trace of the contraction disappeared. The knife was withdrawn, and the small puncture occasioned by it in passing through the skin afforded the only perceptible indication of what had been done. No pain or other bad consequences followed, and the cure might be regarded as at once complete.—*Edinburgh Medical and Surgical Journal.*

USE OF TURPENTINE IN SCIATIC NEURALGIAS.

M. Martinet has adduced a long catalogue of cases to shew the superior efficacy of small doses of the Oil of Turpentine. To prevent its acrid effects on the stomach and bowels, he recommends that it be always blended with some corrective excipient, such as honey, gum-arabic, magnesia, yolk of egg, &c. and the dose ordered is a dram or two in divided doses, daily. As a matter of course a correct diagnosis must have been previously made, in order that we may be satisfied that there is no inflammation or organic disease of the nerves ; under such circumstances we cannot reasonably expect a cure from the turpentine alone. If the drug vomits or purges to excess, opium should be added. In 40 cases of acute neuralgia, 34 were cured, 5 relieved, and 1 was not benefited. In 31 chronic cases, 24 were cured, 3 were relieved, and 4 experienced no advantage : 33 of the cases treated with the turpentine had resisted other remedies previously employed. The period generally required for the cure was from 5 to 12 days ; in a few cases the medicine must be continued longer. Out of 58 cases 48 were sciatic, 3 crural, 4 brachial, and 3 facial neuralgias. —*Periscope Medico-Chirurgical Review, from Bull. de Therap.*

DUPUYTREN'S MODE OF TREATING PROLAPSUS OF THE RECTUM.

This eminent surgeon has cured a vast number of patients labouring under this disease by means of an operation which is both simple and speedily effectual. He seizes the folds around the anus with forceps whose blades are large and flat, and excises them with strong sharp scissors : this excision must be carried deep enough to remove not only the integuments embraced by the forceps, but a portion of the rectum, when the relaxation of its mucous coat is very considerable ; generally the depth of the wound need not exceed a few lines, but in other cases it must be at least an inch. Dupuytren usually cuts off in this manner four folds of the margin of the anus, one in front, one behind, and then one on each side ; if the disease be not of great extent, the removal of one or two of the folds may be sufficient. This operation is seldom followed by any considerable hæmorrhage. It is necessary that the patient be so treated, that he has no occasion to have the bowels relieved for eight or nine days, in order that the wounds may not be disturbed. The cure is generally complete in a fortnight. Dupuytren has met with no case of failure hitherto.—*Journal Complementaire.*

INDIAN OPHTHALMIA, TREATED WITH MUCH SUCCESS BY ALUM.

M. Sonty, in a report which he lately made to the Minister of the French Marine, mentions his great success in the treatment of a most violent and rapidly-destructive epidemic, purulent ophthalmia, in the East Indies. At first he had employed antiphlogistic measures, but they entirely failed, or rather the disease was too intense to be quickly enough affected by them. The natives employed very sti-

mulating applications; as, for example, a mixture of pepper, lemon-juice, and the juice of tamarind leaves, to which is added afterwards roasted gall-nuts; this paste they applied round the eyelids. M. Sonty soon found out the marvellously good effects of rock alum. He took a piece, with which he kept stirring, for eight or ten minutes, the white of an egg, which was then to be put into a fine muslin bag. When this is to be used, the patients head must be held back, and, while the eyelids are kept open, a few drops of the liquid are to be squeezed out from the bag upon the eye; this operation must be repeated very frequently—in some cases every half an hour. The same treatment is applicable in all the stages of the disease, and generally cures it in from 24 to 48 hours.—*Periscope Medico-Chirurgical Review, from Archiv. Gener.*

VACCINATION IN HOOPING COUGH.

The son of P. B. Esq. one of my personal friends, a child of one year, who had for some weeks been afflicted with obstinate fits of coughing, and slight spasmodic effort in the next subsequent inspirations. I requested his father to confide in me, that the infant should come to no harm, and, without giving it any medicine, to await the hoop. This child at length hooped decidedly during three or four days, so that I had no longer any doubt of the nature of its disease. It was then vaccinated, and cured completely within the week.

The next case was an infant, under two years of age, the child of Major Fitz—M. who had very recently lost a still younger babe from the disease. The little patient had been suffering from it for two months and upwards; and neither she nor the deceased had ever been subjected to the cow-pock. He was going into Yorkshire immediately, and I advised him, as soon as he got there, to allow it to be vaccinated, which was done, and he has since informed me that the cough was completely cured by the eighth day.

My third case was a dispensary patient for fractured radius, a boy of three years old. He was brought to me about four months since, and had then been suffering from the cough for as long a period. I vaccinated him, and he ceased to hoop as the cow-pock vesicle attained its acme; a very slight cough remaining, however, when I last saw the child, a fortnight afterwards.—*T. W. Chevalier in London Medical Gazette, June* 1833.

EXTERNAL EMPLOYMENT OF PURGATIVE MEDICINES.

If a cataplasm of rhubarb be placed upon the pit of the stomach the bowels will be emptied; and aloes applied to any abraded surface, produce the same effect upon the rectum as if the medicine had been taken into the stomach. This method, however of exhibiting cathartics is rarely or never employed, although it may be taken to advantage under certain circumstances; when the patient for example obstinately refuses to take medicines by the mouth, as sometimes occurs in childhood and in insanity, and when more harm than benefit would follow the employment of force. On the same principle, placing one or two drops of croton oil on the tongue purges briskly when the powers of deglutition are suspended and injections do not fulfil the intention of the practitioners.—*Thompson's Materia Medica and Therapeutics, vol. 2, p. 250.*

FATAL EFFECTS OF A TARTAR EMETIC PLASTER.

M. Bricheteau, physician of the hospital Necker, reports the case of a girl aged 20, for whom a plaster, the surface of which was sprinkled with half a dram of tartar emetic, was ordered to be applied to the epigastrium, where several fresh leech-bites were at the time. In the course of two days a deep eschar was formed; the subjacent cellular tissue rapidly destroyed and the recti muscles made bare; much febrile irritation was excited, aphthæ appeared in the mouth, and the parotids became immensely swelled; the patient died. On dissection, the whole of the cavity of the mouth was found studded with aphthæ; the inner surface of the small gut presented considerable redness and puffiness; and the ulcer in the epigastrium extended deep to the posterior surface ot the recti muscles.

Observations.—Blisters have frequently been known to cause painful and most troublesome œdema; and leech-bites have been followed by erysipelas and deep ulcerations. As a general remark, epispastics must be employed with caution, in weak, irritable, and lymphatic females.—*Periscope Medico-Chirurgical Review from Archiv. Gen.*

THE INDIA
Journal of Medical Science.

CALCUTTA: JANUARY 1, 1834.

Respecting all human undertakings, there is ever sure to prevail some degree of difference of opinion and misconception. Prejudice too often is apt on such occasions to constitute herself the interpreter of what she takes but little trouble to enquire after, or estimates intentions and means after a summary fashion of her own. With respect to the publication of which this first number is submitted to the public, it is not surprising that it should to a certain extent form no exception to the general rule alluded to. It becomes us therefore to offer a few explanatory remarks on the nature of the publication itself, and our reasons for instituting it.

The establishment of such a work has long been felt to be desirable. The success of two experiments for the promotion of science in the East, encourages us to augur a similarly auspicious result for that which we have now ventured upon; viz. the formation of *the Medical and Physical Society* of Calcutta, and the institution of the *Gleanings in Science* since merged into *the Journal of the Asiatic Society*. Of the latter it may fairly be said that it is too exclusively devoted to general science and oriental literature, to be available for topics of such a peculiar nature, as legitimately fall within the province of a periodical like ours. As respects the TRANSACTIONS of *the Medical and Physical Society* of Calcutta, on the other hand, their plan precludes the possibility of recording with advantage many brief, fugitive, yet comparatively important questions that arise during the long annual or biennial interval between the publication of each volume. A person contemplating the notice of such questions as they arise, is naturally deterred by the consideration of the remote period to which its appearance before the public must be postponed; a period when most likely the topics or phenomena have lost much of their interest, or cease to excite profitable discussion.

The consequence of this, there is good reason to conclude, has been some degree of apathy in persons otherwise well qualified to become acute observers, were a proper stimulus in action to excite their energies. Such a stimulus we hope *the India Journal of Medical Science* will prove. Neither its plan nor its space admitting of long theoretical disquisitions,or of prolix essays it will serve as a faithful register of facts occurring daily around us. It will thus possess a certain freshness of interest and material which publications appearing at longer intervals do not usually possess. Accordingly, we have little or no doubt, that it will meet with general encouragement and be largely patronised as a convenient vehicle for rescuing many minor facts from oblivion, that in the aggregate may form links of a comprehensive chain.

To our professional brethren throughout India we look up with confident anticipation of cordial support. The members of the *Medical and Physical Society of Calcutta* we earnestly trust, will give our little work a friendly welcome, and look upon the Editors as fellow labourers in the same vast and exhaustless field. Many years must elapse before it can be justly objected that the labourers are too many. There is ample room for several publications like that which we are endeavouring to introduce favourably to the notice of the community. In India the spirit of inquiry is as active, as it is illimitable, and thousands are marshalled under its banner of light! The resources of this fine empire are but in the commencement of their grand developement, and Medical Science must keep pace with the march of improvement, or fall back into a disgraceful position.

Another and a most cogent reason for the establishment of the *India Journal of Medical Science*, is the hope entertained by its projectors of its being likely to prove the means of great saving to their brethren in the Mofussil, who are in the habit of getting out the European medical periodicals at a great expense. The original cost of these indeed, combined with the heavy postage enhanced by their bulk, renders it almost a ruinous undertaking to subscribe to them, or to have them forwarded otherwise than by dawk bangy. Protracted delay is the consequence of the last mode of conveyance forming a serious drawback upon the gratification of the Mofussilite. With reference to these remarks, our selection department from European works, &c. including abstracts of whole periodicals, &c. and choice extracts will form the groundwork of our journal.

The *India Journal of Medical Science* will appear on the first day of every month. The nature of its contents may be generally stated under the following heads.

Original Communications and Correspondence on* Medical Science.

* The term *Medical* throughout, and as respects the title of our journal, includes the science or art of healing in all its branches.—*Editors.*

Notices of Native Remedies and routine of Practice in various diseases.

Medical Topography and Statistics; and Hospital Reports.

Medical Jurisprudence and Reports of Coroner's Inquests, with such remarks as they may suggest.

Zoological, Zootomical and Entomological Observations.

Medical Botany, more especially that of the East.

Abstract of European and American Medical Works, with selections.

Reviews of Works on Medical Science.

Popular Essays on Disease in untechnical language.

Biographical and Obituary Notices of distinguished medical men, &c. &c.

On these various topics we invite our brethren of the profession at the different Presidencies to favour us with communications. We shall always be glad also to avail ourselves of the contributions of unprofessional persons in matters connected with the topics indicated. The favours of all will meet with impartial attention. We need scarcely, however, remind intending contributors, that to ensure publication in our journal, their communications must be conceived in that spirit of manly candour and gentlemanly courtesy, which ought ever to distinguish the members of a learned and liberal profession.

It will always afford us pleasure to get lithographed or engraved, when practicable, such drawings of objects within the province of Medical Science and Natural History, as we may be favoured with. Of course we mean it to be understood that such delineations should represent something uncommon.

As anonymous communications respecting scientific facts carry little weight, correspondents and contributors will be expected always to communicate their names to the Editors. Though this precaution is necessary to stamp authenticity on the papers sent, as far as the Editors are concerned; nevertheless, a name need not appear if contrary to the wishes of the writer. In that case, the initials or some *nom de guerre* will answer equally well, it being understood that the very appearance of the article in the journal vouches for its authenticity.

The Editors as they are responsible for what appears in the work, reserve to themselves the right of rejecting such papers as may appear to them to fall below their contemplated standard; or not to be calculated to increase the general stock of useful information; or to be written in a tone of unbecoming censure, and mere partisanship. Anxious to cherish good feeling, and a generous spirit of research amongst their professional brethren, the Editors cannot admit into their publication any article inconsistent with either. They beg it also to be distinctly understood, that rejected papers cannot be returned to the writers for obvious reasons. Contributors will therefore see the propriety of keeping copies of their communications. It would also be a great accommodation to the Printer, where it can without inconvenience be done, if contributors would write on one side of the paper only, and that in as plain and legible a hand as possible.

As the work is not set on foot with a view to profit, we would just hint, that prompt and punctual payments will form the main condition upon which it will be forwarded to Mofussil subscribers. The journal will cease to be sent to a subscriber who may fall into arrears for three numbers until he adjusts his account.

We are quite aware, that there are not wanting those who predict the failure of our literary project. Such vaticinations we consider not of the slightest consequence, confiding as we do in the support of a discriminating public. The experiment we are trying certainly incurs a risk of loss, but that is merely personal to ourselves, and we are quite willing to suffer more or less in such a good cause. Our anticipations, however, point to a very different result; for seeing the rapid and brilliant success which a Calcutta monthly periodical entirely devoted to sporting topics (long may it flourish!) has met with,

we never can believe without that demonstration which trial alone can afford, that one entirely dedicated to a series of sciences of vital importance to mankind, will fail for want of due encouragement. Thus deeming, we have addressed ourselves with alacrity to our self-imposed task and all its risk.

While returning our best thanks to our subscribers and wishing them many happy returns of the season; we beg most particularly to express our cordial acknowledgments to our contributors of the profession, who, literally on the spur of the moment have so readily given us their support.

Mr. Corbyn's account of the fever that has prevailed for some time in Calcutta will we, doubt not, interest many of our readers. Mr. Corbyn would appear to assimilate the disease to that species of bilious remittent commonly called jungle fever, save that we miss the delirium and yellow suffusion of the surface. Gastric irritability seems to have been always present. This is ever a most distressing symptom, as it forms such a serious obstacle to remedial measures.

Although not disposed to go all lengths with Dr. Macculloch in his views on Malaria, Mr. Corbyn clearly leans to the idea that it was a prominent morbific agent in producing the late fever. With regard to the locale of the epidemic according to Mr. Corbyn's experience, it embraced the whole circle and centre of Calcutta; and it is not, he contends, to be supposed for a moment that Malaria existed in all these places. We would however remind Mr. Corbyn that there are plenty of drains, and tanks, and other feeders of Malaria in the localities alluded to. But be that as it may, the river line, especially between Garden Reach and Diamond Harbour, has been mentioned as that along which greater sickness prevailed than elsewhere. Pilots and others whose duty required their presence down the river suffered a good deal. Two causes may be ascribed for this, the effect of the inundation caused by the May gale, which for a time converted tracts of land on each side, of the river into a salt water marsh, and the number of human beings and cattle that perished, so that vegetable and animal decomposition were acting in unison. With respect to Calcutta itself, improvement in its system of conservancy is required, and it never will be what it ought to be until steam is rendered more largely applicable to its efficiency than is unfortunately yet the case. Mr. Corbyn mentions a circumstance well worth noting, relative to the fosse of the fort, which he recommended (with a beneficial result) to be watered during the rainy season. For the treatment of the epidemic fever, in which Mr. Corbyn appears to have been very fortunate, the paper itself should be referred to. It will be observed that he soon felt the necessity of abstaining from bleeding.

Mr. Raleigh's case of Hemiplegia, or palsy of one side of the body, affords a gratifying instance of the success of judicious treatment. It will be observed that until the exhibition of Strychnine (a preparation that is derived from Nux Vomica which our unprofessional readers will recollect is a potent poison) no improvement took place in the case. On the third day of the exhibition of the Strychnine, a manifest amelioration was remarked. Whether this was the result of the Strychnine alone or of the previous depletion, &c. or of both combined, we shall not take it upon us to state, but on the whole the result was a happy one. What has been considered by some as a test that the Strychnine is proving effective, or in the way of doing so, *viz.* the tetanic or spasmodic affection of the muscles of the neck and spine, was not in this case observable at all.

Mr. Hutchinson, who takes a liberal and enlarged view of the subject of Native Medical Education; proposes in a communication which can be referred to in our preceding columns, the formation of a Native Medical Society. The suggestion is well worthy of consideration, as such a society would afford good opportunities for native youths to elicit knowledge and stimulate research. Whether it may be established or not immediately, we are pretty sure that the time is not far distant when the propriety of the thing will come home to the bosoms of the natives themselves. If instead of Hindoostanee, English were adopted as the language of discussion, we see no reason why Native Medical students should not join the Medical and Physical Society of Calcutta.

Knowing the great anxiety entertained by parents on the subject of Vaccination as a

prophylactic to that hideous scourge small pox, we have reprinted almost the whole of the report of Mr. Cameron on the subject, which in several respects is enlarged and added to. Mr. Cameron is a strenuous advocate for vaccination, and we have no doubt the enlarged circulation of his sentiments on the subject will do good. We omitted to send to press in its proper place the following remarks of Mr. Cameron, which however we deem sufficiently interesting to give them a place here.

"In the months of March, April and May of last year, during the prevalence of an epidemic small pox, which ravaged Calcutta and its environs, numerous cases of the modified disease occurred in people who had previously been vaccinated, and the circumstance tended in no small degree to shake the public faith in the efficacy of vaccine inoculation as a preventive of variola. Occasional instances of this latter form of the eruption have, for many years, been met with in this country, but so rarely as to attract but little attention. Of late however, the more frequent appearance of such cases has led medical men, on the presumption that the vaccine matter they employed had degenerated in quality, anxiously to desire to obtain it from its original source; and it must be highly gratifying to them; as indeed to every friend of humanity, to learn that after much unavailing research, the vaccine disease has been discovered, to exist in the cattle of India, by Dr. M'Pherson of Moorshedabad. With matter taken from the cow Dr. M'P. has made many trials on the human subject, with the most happy and satisfactory results. The vesicles produced are declared to have borne an entire resemblance to those exhibited in the plates of Drs. Jenner and Bryce, and the security against small pox which the inoculation afforded was found to be complete. The simple announcement of so important a fact is all that is requisite in this paper, as his experiments on the subject will be found in detail by Dr. M'P. in the 6th vol. of the Transactions of the Calcutta Medical and Physical Society."

Medical Retiring Fund.—During the past quarter the business of the Medical Retiring Fund has been actively pursued. At the October quarterly meeting all the proceedings of the committee were approved of and their report adopted: and the Chairman, Mr. Corbyn, gave a satisfactory and lucid account of the state of the fund. He said that its affairs were much more flourishing than could have been expected, considering the many difficulties it had had to contend with, from the general poverty of the service, the doubt of obtaining the sanction of the Court of Directors, and the impossibility of framing regulations in accordance with the views of all. He then proceeded to say that during the doubt as to the decision of the Court of Directors, it would not be possible to declare any annuities this year; but that he hoped the fund would be in active operation next year, as soon as sanction for its establishment should have been obtained. When, no doubt, those who still hung back would be eager to join: at all events the number is but small, exclusive of those absent on furlough, who have not already given in their adhesion to the fund.

The resolutions already published to the service, were then carried, and the business of the meeting concluded with the usual vote of thanks.

Soon after the quarterly meeting, the whole of the signatures to the memorial were received: when it was found that from all the divisions of the army, they amounted to 202; which circumstance will prove to the authorities at home that the Bengal Medical Service is nearly unanimous in favour of the cause.

On the whole, the prospects of this fund are improving, and there appears to be little reason to doubt its ultimate success.

Milk Powder.—It may be in the recollection of many of our readers that some time ago, the scientific journals contained an announcement of a Russian Chemist having discovered a method of preserving all the essential qualities of milk, by evaporating it to dryness; when it, as was stated, could be kept for any length of time, till wanted for use; and that when mixed with a certain proportion of water it possessed all the properties of fresh milk. Of this fact no one, so far as we are aware, has availed himself, with the exception of Mr. Previtte of the firm of Gunter and Hooper of Calcutta: who has submitted for our inspection, several different specimens of an article he has advertised for sale under the designation of Pulverized Milk. This preparation is an excellent substitute for fresh milk, and promises to be a valuable auxilary to ship comforts, or to travellers up the country, or on the river where fresh milk cannot always be procured. In its composition it is perfectly innocent, and will probably come extensively into use for the preparation of puddings and other articles of the kind, as well as for tea and coffee. How it may agree with the delicate stomach of a young infant, or even a child, can only be known after long trial; but we see no reason why it should be found otherwise than good.

As yet the experiment has been confined to the milk of the cow, but should that be found to agree perfectly with children there is reason to hope that ass' or goats' milk may be preserved in the same manner and afford a substitute for the fresh milk of those animals, the value of which can be duly appreciated only by those parents who have felt the loss of their child depending upon a supply, in this country at all times uncertain.

Since our Editorial went to press we have been requested to state that the invention of Pulverized Milk is, so far as Mr. Previtte is concerned, entirely original; he never having seen the article we referred to, nor even heard of it, until mentioned to him by ourselves.

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ORIGINAL COMMUNICATIONS.

CASE OF TUMOUR, WITH OPERATION.

By W. W. Raleigh, Esq.

The accompanying* is a correct representation of a tumour which I removed from the neck of a Native of about 35 years of age, and apparently healthy constitution.

The patient's history of the disease is as follows: Ten years since he observed a small swelling just behind the angle of the lower jaw on the right side of the neck, which gradually increased in size unattended by pain. In about two years it attained the size of an orange, and after eight years it had increased to about three times that magnitude. During the last two years the growth had been more decidedly progressive, and about six months ago, when he first applied to me at the Eye Infirmary, the tumour had become nearly as large as the man's head. Its surface was irregularly lobulated, the elevated portions appearing of various consistence. Some perfectly scirrhous, others doughy, and others again felt as if the contents were fluid; enlarged veins which were very conspicuous through a perfectly smooth integument, traversed the surface, occasioning furrows in the substance of the swelling; the attachment of this mass was extensive, occupying the space from the upper part of the mastoid process, and ramus of the lower maxillary bone, to within an inch of the clavicle, the lobe of the ear being obliterated in extension of the integument. It hung down on the shoulder and chest, by which it was supported; no acute pain was experienced, but the weight and bulk of the tumour caused great inconvenience.

In consequence of an attack of fever, I saw nothing of the patient for more than five months. On his retnrn I observed that a malignant action had been excited since his last attendance, the tumour had lately been slightly painful. Ulceration had commenced in two of the lobes, forming large sores, the edges of which were elevated and everted, whilst their cavities were deep, ragged, and of dark colour. A thin ichorous discharge issued, and for twelve or fourteen nights in succession, hœmorrhage to the amount of several ounces had taken place. On the 6th of November the operation was performed, commenceing an incision over the root of the mastoid process, bringing it round the ear so as to form a lobe, and carrying it to the lower and anterior part of the tumour, a corresponding division of the integuments was made on the posterior surface. In this step of the operation an enlarged branch of the posterior aural and facial arteries was divided together with several others from the temporal, thyroideal, &c. of less formidable calibre, and a large vein from the external jugular, all which required to be promptly secured; the body of the tumour however was scantily supplied with blood vessels of trifling size; its connexions with the fascia covering the muscles of the neck, particularly at the posterior part, and over the lower jaw, were exceedingly firm and intimate, but some of the deeper seated lobes which had insinuated themselves beneath the edge of the sterno mastoid muscle, parotid gland, and angle of the jaw, were easily detached and turned out with the finger on a division with the knife of the stronger bands of union. Sufficient integument was saved to admit of the edges of the wound being tolerably and accurately approximated, and retained in contact by sutures and plaister, but from the enormous surface which had been laid bare and the looseness of the integument brought to cover it, adhesion by first intention was not anticipated. It, however, actually was accomplished with great rapidity. At the first dressing on the 11th, the sutures were found to have ulcerated through the skin, and with all the ligatures were removed, the parts being retained in apposition by their own adhesions. The case proceeded favourably, and by the 20th of December the edges of the wound had completely healed. No retraction of the muscles or integuments of the face has been occasioned by cicatrization.

The character of the tumour would appear originally to have been a compound of the "adipose" and "fibrous," which, after remaining for ten years in an indolent and inoffensive state, took on a malignant action. On dissection, after removing a covering of condensed cellular tissue, the diseased mass was of an irregular and spheroidal shape, and formed into large lobules; on a section being made, some of these lobes, and particularly the central portion, were found to be of dense fibrous structure and perfectly white; others immediately contiguous to the former, were fatty, of pale yellow hue; whilst those

* See Plate.

nearer the ulcerated parts were of a brainy consistence and dirty brown colour, becoming nearly black at the base of the ulcers, and one large cyst filled with curdy matter, and a pale amber coloured fluid, occupied the upper and posterior part of the growth.

I am indebted to my friend, Mr. Bramley, for the graphic delineation of the tumour previous to operation.

W. Raleigh, *General Hospital.*

VACCINATION.

By Baboo Radakant Deb.

To W. Cameron, Esq. *&c. &c. Calcutta.*

My dear Sir,—I have attentively perused the "History of the Cow Pox," contained in the accompanying (Plumbe's) work on Vaccination, which you did me the honour to hand to me, some months ago, for the purpose of making my remarks on the same, as well as on your valuable report on the present state of Vaccine inoculation in Bengal, and have found that Dr. Jenner's experiments and remarks as stated in the work in question are simple and satisfactory, and have therefore no hesitation in recommending their insertion in the second edition of your report, and its translation into the vernacular language for the use of the Native practitioners.

The substance of the history alluded to, is, that about 64 years ago, in 1768, Edward Jenner was aware of a distemper named Cow Pox which infected the teats of milk cows, and equally the hands of the milkers; that from various incidents he was enabled to draw this conclusion, that it was a peculiar property of the cow pox to prevent any infection from the small pox; that it might be possible to propagate the cow pox by inoculation, not only from the cow to the human subject, but also from man to man; that in 1796 "he had acquired a correct knowledge of the appearance of the malady, and selected a healthy body to make the first trial of inoculating one human being from another with the cow pox virus; that in 1798, being satisfied with the result of his experiments, he resolved to lay them before the public; and that Mr. Cline made his first trial with the vaccine in St. Thomas's hospital."

Although the inoculation by the natural pock has been known to the natives of Bengal from time immemorial, long before Dr. Jenner made known his theory, yet this peculiarity in the cow pox as a preservation from small pox infection was totally unknown to them until of late, nor had they ever used the vaccine lymph on any occasion, for this reason, because when the disease becomes common amongst cattle, which it does at certain seasons of the year, cows scarcely escaped it; and moreover they were ever adverse from nature or the prejudices of caste, to insert the purulent matter* from the body of a beast into that of a human being, and therefore they particularly abominate the vaccine virus to the present day, and are very far from being made easy converts to the vaccine philosophy. Following the examples of their predecessors, their prejudices cannot, I imagine, be easily overcome in this respect; while doubts still exist even in Europe, whether the prevention be finally established, as the author of the History of Cow Pox observes, that "the friends of vaccination sleep, but its enemies are wakeful and active; and with shame be it spoken, they have enrolled themselves even in the ranks of that profession to whom Providence has condescendingly given the greatest power and influence in its support and propagation."

The religious prejudices of the natives respecting vaccination might perhaps be abated, if the subject be properly explained to them, and its advantages pointed out with some comments, calculated to remove even their religious aversion to drawing matter from an incision on the corpus sacrum; so that although the slaughter of such animals as cows, and the consumption of their flesh in this Calee age are prohibited and severe penances prescribed by the "Hindu Shasters" or laws, yet it is also strictly enjoined that every substance or matter derived from the cow is to be esteemed pure and holy to the degree that even its animal putrescences are not to be abhorred; consequently no objection can be admitted for the use of vaccine matter, which is equally so derived, or make the case less objectionable, even if they may get their children vaccinated by their own Tikadars, and worship the goddess "Setula" and live with the same care and abstinence which they would observe in the use of the natural pock, till the recovery of the patients be effected, but their country customs and family usages being dictated by their religion, are so cemented within their breasts, that they cannot be altered without great difficulty.

With respect to your report, the chief causes of the slow progress of vaccination in this country as pointed out by Dr. Shoolbred, and cited by you, are just and proper; but the only reason I can assign is, that the natives of this country, particularly the Hindus, are so addicted to religious prescriptions (which connect their moral and physical obligations,) believing them to be the best and primary above all, as observed by the Sages from time immemorial, that they cannot but regard every example of deviation from them or their ancestors, whom they consider to have been more civilized, enlightened, and learned than themselves, as highly criminal; wherefore they are indifferent to any improvement which their religious usages do not confirm, which is the case with every proposition of the moderns. They disregard the advice and publications, particularly from foreign-

* The worthy Baboo is mistaken: the virus or lymph of the vaccine decease is not a purulent matter or pus, but a clear transparent viscous or gum like fluid. When the pustule, on the contrary, puts on a purulent appearance, it is a sign that it is spurious.—Editors.

ers, whom their females know nothing of, these females presiding over many domestic concerns, are always averse or afraid to introduce any new practice not within the limits of their own understandings. The coercive and compulsory measure which, in the first instance, was adopted against the small pox inoculators for introducing the practice of vaccination, induced many to quit the presidency; hence the respectable native inhabitants of Calcutta sent their children to the interior to have them inoculated, and a few of lower classes were vaccinated in town; in consequence of which, your expectations for the removal of the obstacles to the general extension of that practice amongst the native community, must have, I think, been imperfectly realized, or much disappointed.

The natives of this place do not admit that Calcutta, through its agency, is the great generating focus of variolous infection, from whence it spreads to every other part of Bengal, as stated by you; because this disease and their practices are prevalent every where, and has been so from time out of mind. If variola is the cause of occasional alarm, and to those who have been vaccinated, as mentioned by you, the individuals who are not friendly to vaccination might have good reason to question its efficacy in preventing the small pox.

You have indeed formed a wise plan, to prevail on the Tikadars to become Vaccinators, and to appoint them to offices under your charge, whereby they will no doubt discharge their duty with attention; but you should not recommend any compulsion or punishment when they follow their long established operation, in order to introduce a new and unexplored practice in its stead; while the efficacy of the latter they have not yet been convinced of, as admitted by yourself.

You further report, that a few respectable natives in Calcutta have had their children vaccinated; the original cause of which I have herein before specified, and beg to propose a method of propagating the practice among them more extensively; that as the Tikadars cannot exercise any influence over them, the medical gentlemen of Calcutta may therefore communicate first with those opulent young Baboos that are styled by Europeans liberal and enlightened since they do not care much for their religion or ancestors, and may easily come forward to get their children vaccinated, and then go on with the Collegiates, who are anxious to innovate or reform them, and would perhaps readily adopt the improved practice, either now or after the demise of their old parents. You will thus succeed step by step, as Dr. Jenner did, without annoying the poor Tikadars, or the orthodox Hindoos.

As it is mentioned in the replies to the Medical Board's circular, "that although vaccination is not so perfect an antidote as it was once thought to be against small pox, it is at least the best that is to be had," the enemies to vaccination might employ this deniable proof to oppose the vaccine practice by, as an imperfect antidote, and have just grounds to prefer their long experienced practice as one less defective.

In cases of a second attack of the natural small pox proving fatal, although the patient had been deeply pitted by the first attack, which is mentioned in the letters submitted by the Medical Board, it is not a satisfactory proof in the opinion of native practitioners, who ascribe the mark supposed to have been made by the first attack, to the chicken pox, or other eruptive diseases as they are well convinced by long experience that one who had undoubtedly had the natural small pox once, by proper inoculation or infection is never liable to the recurrence of the malady, in consequence of which they exert themselves to induce fever and pocks after inoculating their patients, as particularized in my first letter to you. If this case be well founded in fact, a similar course might be observed in vaccination, but rare cases in either practice should not be considered universal but accidental.

It is a favorable circumstance noticed by you, that when a most virulent epidemic of the small pox visited the city of Norwich in 1820, only two died of the small pox out of ten thousand vaccinated persons (though they otherwise appear liable to contagion,) and that the Government have been pleased to order the persons educated at the Native Medical Institution, to be instructed in the practice of vaccination, and sent to stations where the natives had previously no means of availing themselves of this blessing. The testimony you bear to the results of this experiment in Muncepore is also promising.

A precautionary measure you recommend is that children sent from this country should be re-vaccinated on their arrival in England, as the constitution is liable to very great modifiations by change of climate; but the Tikadars assure us, and others positively declare, that the children which have properly passed through the small pox inoculation never require a repetition of the same, though they may traverse any part of the globe, for which they consider this practice more secure and salutary than any other.

Regarding the freedom of children from all diseases before the performance of the inoculation, the specific power of the mature dry scab, the time for taking lymph, and the mode of insertion of the virus, our Tikadars quite concur with you; but the vaccine visicle alone without communicating principle so as to produce pocks on the patients, appears by no means satisfactory and unobjectionable to them, or to the parents of the children, because they affirm that the human body is subject to variola, which having been produced ever so slightly, by variolous inoculation, prevents the recurrence and infection of the disease in future, for which especial reason they prefer the small pox inoculation to vaccination.

The opinion of Dr. Thomson, annexed in the concluding part of your report, states, that the protection which vaccination

affords against the fatality of small pox, is at least equal, if not superior, to that which is afforded by passing through the small pox itself, even in the natural way. The natives agree with the celebrated Doctor so far, that if the vaccinating and the passing through the natural small pox are in his opinion equal protections against the fatality of the disease, they have previously ensured similar security by adopting variolous inoculation, and thereby observed the ancient custom of their forefathers (which is incumbent on them) with a firm conviction that they had practised it with safety before all other nations.

These are, I believe, the general opinions or prejudices of the natives of India in favour of variola, and their objections to vaccine practices. As I need not offer any remark on the documents contained in the appendix of your report, I finish this letter with esteem and regard,

My dear Sir, yours very sincerely,

RADHAKANT DEB.

Calcutta, August 13, 1832.

TRANSPOSITION OF THE ABDOMINAL VISCERA.

By W. W. RALEIGH, Esq.

On the post mortem examination of a patient who died in the General Hospital of cholera, the following complete transposition of the Abdominal Viscera was presented, the contents of the chest observed their natural disposition.

The large lobe of the liver occupied the left hypochondrium, the smaller lobe crossed the scrobiculus cordis, towards the right hypochondrium : the gall bladder which was filled with bile had its fundus directed towards the left side ; the æsophagus passed through the diaphragm on the right of the spinal column to join the stomach, the cardiac extremity of which took up the right hypochondriac region, and behind and below it was the spleen ; the pyloric portion of the stomach passed across the epigastrium towards the left side, the duodenum taking its course contiguous to the gall bladder, formed its curvature with the convexity to the left, and crossed the second and third dorsal vertebræ to the right side ; the small intestines then commencing took their direction from right to left and entered the caput coli in the left ilium, the ascending colon passed up the left side of the belly, the descending down the right side, to form the sygmoid flexure in the right iliac fossa.

The disposition of the blood-vessels was also reserved. The inferior vena cava was placed at least half an inch to the left of the aorta ; the left renal artery was the longer of the two, and passed behind the vena cava ; whilst the right emulgent vein crossed before the aorta, and the right common iliac vein passed behind the left common iliac artery.

Although a complete transposition of the contents of the abdomen existed, with exception of the wide separation of the great blood-vessels, the several viscera maintained their position with relation to each other as when distributed in a natural manner.

W. RALEIGH, *General Hospital.*

THE PHYSICIAN.

No. II.

INDIGESTION.

Common to all ages and to all conditions of life, indigestion is the bane of man. To it the little infant in arms owes its early sorrows ; and by it the pilgrimage of old age is shortened. It embitters the intermediate stages of childhood, youth, and manhood ; and, in short, indigestion is a giant disease that tyrannizes over all.

It would be foreign to the design of this paper to enter into the different theories of indigestion, its seat, and its cause. As in other cases, these theories are rarely supported by facts, admitting of an unequivocal interpretation ; and they are therefore calculated to do more harm than good, as always happen when crude ideas take the place of things. Suffice it to say, that indigestion is an improper action of the digestive organs; and that those organs are the stomach and bowels.

Indigestion has been divided into several heads ; of which organic and functional seem to be the most natural and simple. These again have been subdivided into several other heads, upon each of which a fine name has been bestowed, and distinctions without differences laboriously sought for, by authors anxious rather to shew forth their own learning, than to throw any new light upon the treatment of the disease. With these distinctions we have nothing to do. They are like the artificial classifications of naturalists, useful to those who profoundly study them, but utterly at variance with the plan of nature herself. Nature here, as there, is inscrutable, and were it otherwise, it is not the design of this paper to enter into her minutiæ, but to generalize her most prominent facts, that our labours may be useful to all. To the symptoms, causes, and treatment, then, of functional indigestion will our remarks at this time be confined.

The symptoms of indigestion are perhaps the most numerous of any disease whatsoever ; as may readily be believed when we consider that there is hardly a malady, some of the symptoms of which it does not put on. It has been mistaken for organic diseases of the liver, spleen, kidneys, bladder, bowels, lungs and heart : for aneurism, consumptions, diseased mesenteric glands, inflammations of all kinds, and for almost every other malady to which human flesh is heir to. But it possesses some striking symptoms of its own ; which, if well understood, lead to an unfailing means of forming an accurate judgment of the case. Indigestion is a disease, however, that must be studied to be known ; and as the observations of an intelligent patient form the best guide to the physician, it is

hoped that this paper, though not even professing to contain any thing new, and which must from its very plan omit much that is already known, may enable such sufferers to assist in forming a right idea of their complaints, and to enter into the readiest method of effecting their cure.

The symptoms of indigestion are heart-burn, acidity at the stomach, flatulency, eructation of acid, or rancid oily-like matter, pain in the head sometimes very severe, forming what is called sick-head-ache, and above all, disorder of the bowels, either from looseness or costiveness. The patient after a time becomes languid, nervous, irritable, and desponding. He thinks the worst of his case; and takes to reading medical books; fancying he has all manner of diseases foreign to the real one. He becomes very anxious. The pulse is feeble and frequent. Exercise distresses him, even if it be carried but to a slight degree. The sleep is disturbed; the temperature of the body becomes unnatural; the feet are cold, and the forehead is frequently hot. There is tenderdess at the pit of the stomach, sometimes to so great a degree that if the hand slips in drawing on a glove and strikes that part, much pain is produced, far beyond what ought to occur from so trivial a cause. Pain is felt in various parts of the bowels; sometimes like colic around the navel; sometimes in the groin, when the patient may fear he is ruptured. There is generally cough, slight but constant, and particularly in a morning. The chest is painful on pressure, especially along the cartilages of the ribs, by the side of the breast-bone; and this increases sometimes to such a degree as to be painful by the action of the muscles in breathing, when the complaint is often enough mistaken for the beginning of consumption. But in this case it may readily be known by attending to the symptoms, and finding out whether an increase of pain takes place on mere muscular exertion, or not: this point, so important, may be ascertained by joining the hands together and pulling different ways, or by trying to break a strong string, when the pain comes on more acutely than usual; and the patient feels it in the cartilages and muscles of the ribs, instead of in the inside of the chest.

Along with these symptoms there is a total loss of appetite; or it may become depraved, craving for food at all times. Sometimes, too, there is a great desire to eat the most out-of-the-way things, such as lime, dirt, paper, and even glass. At others, pickles, highly seasoned dishes, and salads, are longed for; together with trash of all kinds that is sure to increase the disorder, and that consequently never fails to hinder the cure.

Besides these there are several very curious symptoms of indigestion which are not a little distressing to the patient. One is a difficulty of breathing, or dyspnœa as it is called, amounting sometimes almost to a feeling of suffocation. It comes on in a morning, generally after exercise, and before breakfast, with a sense of pain in the stomach; then the difficulty of breathing follows, gradually increasing during the heat of the day; but nearly going off toward the evening, as indeed it does altogether in the night. A glass of wine, æther, eating—all relieve it for a moment, and but for a moment; for it never fails to make its appearance again in a little time, quite as bad as before. This is one of the most constant of all symptoms in cases where it once begins; and is to be relieved only by the general improvement of the patient: and it sometimes lasts a good while, when in every other respect a perfect cure has taken place. Another odd symptom is a spasm or cramp of the muscles of the lower jaw. Cramps of the legs, and arms, and of some other parts of the body are common enough in indigestion; but this is a cramp of the muscles of the lower jaw and throat. It often takes place on gaping, or on keeping the mouth open for a length of time in a particular position. It is very distressing, because it frightens the patient, more than even from the pain, though the pain, like that in all cramps, is bad enough. This spasm goes off after a little time of itself, and recurs again whenever its immediate cause is renewed. Its departure may be hastened by rubbing the muscles affected with any stimulating liniment, such as oil and hartshorn, or the compound camphor liniment, or the anodyne balsam of the pharmacopœias; or even by rubbing with the hand only, when those remedies are not in the way.

Nor are spectral illusions the least curious of the symptoms of indigestion. Only of late have they been attributed to their true cause. So much, however, has been said in the periodicals of the day on this point, that no futher notice of it is necessary here. Of course, spectral illusions do not occur in every case of indigestion: on the contrary, this symptom is rarely present; but whenever it is, it is always, I believe, to be attributed to some disorder of the digestive organs.

The appearance of the tongue varies with every degree of every disease. Any thing that disorders the stomach disorders the tongue, and there is no disease that does not, more or less, affect that organ. Thus in indigestion the state of the tongue affords no certain criterion, either as to the nature or degree of the complaint. In general, however, it is more or less furred, and sometimes very white, and commonly the breath becomes offensive.

As the disease advances, nausea, and sickness, and vomiting frequently occur, and feverishness, loss of strength, and dropsical swellings appear. The paleness of the countenance increases, the cough is more urgent, the loss of strength becomes daily more evident, the flesh falls away, the patient gets very thin, and death at last puts the finishing stroke by some organic disease.

The liver, spleen, and stomach are the parts usually found diseased on examination after death from indigestion. But

the lungs, the bowels, mesenteric glands, pancreas, and, in fact, all the viscera, are occasionally affected. This may readily be understood when we reflect, that the functions of all depend, in so great a measure as they do, upon a healthy digestion.

Of all the above-named symptoms none is so distressing as the sad state of mind into which the patient falls. It is lamentable to see a man of first-rate intellect sink under the terrors of indigestion, into an inactive, fearful being, lost to himself and the world. He becomes anxious about the merest trifle: the opening a letter, a sudden knock at the door—any thing, in short, either in or out of the way, is sure to awaken anxiety, indecision, and distress. Every perception of annoyance is quickened, and the unhappy patient is haunted by a thousand dangers, that, were he well, would be cast to the winds. In this state complete hypochondriacism is sometimes established; and sometimes even suicide has closed the scene.

The causes of indigestion are numerous as the symptoms. Man, in a state of society, is living not as nature in ended he should live, but after a fashion of his own. His hours are not her hours. He neither rises up nor retires to rest as nature intended he should get up and lie down. He neither eats nor drinks as she intended he should eat and drink. His days are spent in anxieties, and his nights in watchings, caused neither by cares of providing food nor raiment. Whilst the exercise to which those cares were originally an incentive, is debarred by the necessity of attending to the new ties he has imposed upon himself. Is it then to be wondered at that the functions of every organ should be perverted from their original acting? Man may change his habits if he pleases; but he does so at the expense of functional disorder, which never fails to bring on disorganization of his body, disease, and shortening of life.

The patient then troubled with dyspepsia,—for so medical men have thought fitting to mystify a better word—indigestion,—will do well to avoid excessive indulgences of all kinds, whether of the passions or of the appetites. Intense study, hard drinking, indolent habits of mind and body, are among the causes of this disease; equally with the too great use of warm drinks, such as tea and broths, smoking too much, the chewing of tobacco, and the taking of opium or other narcotics. Over-distension of the stomach, from eating to excess, cause it in the child; and the same indulgence is perhaps generally its origin in the man. In such cases the stomach has more to do than it can accomplish, and seems to abandon the task of doing any thing in despair.

But the quality of the food is often as hurtful as the quantity. Every thing that departs from the simple cookery of nature is the cause of indigestion. Sours and sweets; highly spiced dishes and poor broths, are, it may be, equally hurtful,—the one by the too constant stimulus to an organ that naturally wants none, and the other by giving it work to do where no nourishment is to be gained. Broths and soups are, I believe, the worst things a man can take the trouble of eating. If plain, they contain no food—if made rich with herbs and flesh, those substances are more or less indigestible, and the water goes for worse than nothing. John Hunter is said to have fed a dog on broth, in which beef had been boiled to rags, and another dog on the meat so treated: the latter got plump and in good case; the former died, from starvation; thus proving that, in eating broth the stomach is not paid for its labour.

Besides all these, there is another, and that a very constant cause of indigestion, though lying within the power of every one to avoid—the habit of neglecting the bowels. Whilst a man is in health he thinks but little of this, and when he is ill his attention is awakened to it too late. Thus it happens that a regular time for evacuating the bowels is rarely established till the inconvenience of not having done so is felt, and the difficulty of remedying the neglect becomes great; it daily increases too; till, at last, nothing but a regular course of medicines and mortified appetite can relieve it; and that does not always succeed.

This neglect is very commonly the cause of indigestion. It produces costiveness by the accumulation of hardened fæces in the lower bowels; and the colicky pains, general derangement, and irritation brought on by this undue stimulus, are soon followed by looseness. Thus may be explained the alternate variations that take place, from costiveness to purging, in indigestion.

As excesses in diet are among the most prominent causes of indigestion, so excesses in drinking also play their part in bringing it on. Without being, what is called hard drinkers, people often get into a habit of taking more wine than they find to agree with them; and the dissipation attendant upon this, the late hours, and the undue excitement of mind, do almost, if not quite, as much hurt to the constitution as the wine itself. In fact, man, as nature made him, has little to do after dark; and those who go earliest to bed generally enjoy the best health.

But it is said that the quality of the liquor drank is as much to be studied as the quantity; and with a good deal of reason. Wines differ from one another in the proportion of their ingredients. Some wines agree with one person and disagree with another. Spirits, too, are thought to have a directly pernicious influence in "wearing out the stomachs" of those who indulge in them: of which we have many opportunities in this country of seeing the truth. Men, young men especially, are but too much in the habit of taking brandy and water in the morning, after tiffin, and in the evening; and this habit never fails, sooner or later, to cause a certain degree of indigestion; the outward signs of which are, shrinking of the countenance, shrivelled skin, sallow complexion, and increased flow of thin saliva,

especially in the morning. This last symptom is so constant that there is an expressive, but not very elegant phrase for it among the common people, and a man who "spits sixpences" is said to be in a bad way. It is also thought that the scantiness of urine which so frequently forms a symptom of this disease is sometime caused by the drinking of spirituous liquors.

Hereditary disposition is also said to be another cause of indigestion, and it certainly does seem to run in families to as great an extent, as does any other acknowledged hereditary complaint. However, if this notion is true, it can only be by aboriginal formation.

The most frequent symptoms and causes of indigestion have thus been succinctly related: the treatment must form the subject of another paper.

CURIOUS CASE OF HYDROPHOBIA.

By C. Stuart, Esq.

January 10, 1834.—Early this morning in passing the stable my syce, namad Emanee, called out to me in Bengalee "Sir, I have got the rheumatism in my head." I replied by directing him to attend at my house immediately, when he should have some medicine.

On further inquiry I found he complained of pain and spasmodic twitchings about the *right* side of his head extending to the nape of the neck. While preparing a draught for him, he said "dont give me any thing mixed wath *water*, as I have a great dread of it." I turned round, and asked why he entertained such dread, and if he had been bitten by a dog? He replied that he had been bitten five or six weeks before in the finger, (shewing the fourth finger of his *right* hand,) "by a young pup belonging to Mr. Becher's mahout." I enquired how the accident had happened? He answered, "I was smoking the hookah and the pup would play with my feet, when I put down my hand to drive him away and he bit me. I scarcely felt the bite and thought nothing of it." My next question was if the pup was mad? He replied "I don't know, Sir. The pup is now alive and well in the stable." On this I explained that he had nothing to fear, and begged of him to take ℥ss of jalap powder in aqua. pur. ℥ i. He shuddered and started back with horror, at the time of putting the draught to his mouth, and the muscles of deglutition appeared to be in a spasmodic state, but after frequent attempts, he got the draught down with a *quick convulsive* gulp.

I thereupon took blood from his arm to the extent of lb. iij. as far as could be judged from its covering the bottom of a large chillumchee. Tongue clean and of a *bright* red colour. Skin moderately warm, but rather shrunk. Pulse 90, hard and small. He had a wild look and seemed in a state of tremor and trepidation. At the approach of my dog Rover, while bleeding him, he stared in a fright, and I had the dog tied up in consequence;—but he was perfectly sensible and begged me to take care of his wife and children under the impression that he must die. The cathartic began to operate an hour after he had taken it. At 11¾ A. M. when the jalap had produced three bilious copious motions, which I saw, the following was given to him, viz:—

R. Hydrarg. submur. gr. xx.
Opii. dur: gr. ij. m. ft. pulv.

I mixed the powder with treacle and he sucked the mixture off his own fingers, at first with a shudder, but afterwards with perfect facility.

At 1¾ P. M. he took the second dose off *at once*, from a spoon, and licked the latter clean with his tongue. The cathartic had then affected him five times. Pulse still quick and hard, but the wildness in his looks not so perceptible. He complained of his mouth being parched and dry, and his wife told me he was constantly spitting a frothy mucus.

At 2½ P. M. I went to the stable and found him under a blanket apparently asleep, but he got up when called, and I asked him if he had any inclination to sleep. He said he had, and I advised him to indulge it, leaving the stable at the same time and ordering his family not to make a noise. I also desired his wife if he went to asleep to let me know when he awoke. At 3 P. M. they informed me he was awake. I had previously ordered the khansamah to have some milk and arrow-root in readiness. On reaching the stable, I found he had vomited above a cup full of limpid fluid with some of the calomel in it. He does not refuse the arrow-root, but took it himself by spoonsfull at a time.

At first he shuddered, but managed to get down nearly a large cup-full. He afterwards asked for water, of his own accord, and requested some of the people standing round him to hold his head while he attempted to drink it. He would not allow any body to touch the brass vessel which contained the water but put it to his mouth himself, and succeeded in swallowing a small quantity, but with great difficulty, and only by means of convulsive gulps. Pulse small and quick, but less hard. Countenance not so distressed. He asked me if I thought his life could be saved. He wanted more arrow-root, but I told him he had better not take too much at once.

At 4½ P. M. I saw my patient again and asked how he felt himself. He had been walking about, and said he was afraid to look at a tank or a dog, but the pain and twitchings about his head and neck had left him. He had not vomited since taking the arrow-root, but complained of a violent pain below the *right* ear. His mouth was not so parched and dry. The tremor and trepidation in his manner had also subsided a good deal. He took another dose of the powder, and in the course of a quarter of an hour afterwards five or six table spoonsfull of arrow-root without any difficulty, but he would not hear of water.

At 6½ P. M. he complained of being very sleepy, and said he was afraid of remaining in a dark place. I ordered lights for him of course.

At 7½ P. M. they reported he had thrown up the medicine and arrow-root.

At 8½ P. M. I proceeded to the stable and found him in a horrid state of agitation, screaming with fright. I had carried with me the following, viz.

R. spt. æther. comp.
Vin. antimonial.
Tinct. opii a.a. gtts. L. Aq. puræ. ʒ i.
m. ft. haustus.

He was dreadfully convulsed while in the act of swallowing the draught, but got it all down. He has had no sleep, and his wife says the least noise throws him into a fit of agony. Pulse scarcely to be counted—small and slender; countenance very much distressed. Previous to retiring for the night, I directed my sirdar bearer to give him some thick arrow-root and another powder. At 2 A. M. I heard him screaming from the house.

January 11, 1834, 6 A. M.—I find he was quite outrageous all night, walking backwards and forwards between the house and stable, and calling out the names of his fellow servants. By his own account he had three motions during the night, but none of the people about him confirm it. This morning he evinces aberration of mind, shewing me a cloth full of stones for rupees, and saying nobody would allow him to count them. In fact his language altogether is incoherent. I have not been able to ascertain whether the urinary secretion is regular or not. He says himself he makes water three or four times a day.

At present he is incapable of swallowing liquids. Pulse rapid, small and low. He is still however very strong. Gave him 30 grains of jalap mixed with treacle, and put his feet into warm water. He sucked the whole of the mixture from off his fingers. 9 A. M.—Since he took the cathartic and had his feet soaked in hot water he has been quieter and more composed.—10 A. M. Has had a black fœtid motion, (which I saw,) and continues composed.—11½ A. M. He raves again and is quite unmanageable. Ordered his feet to be put into warm water. Has had another stool from the jalap. Pulse rapid, feeble and small.—1 P. M. He feels relief from the warm water, and is still sitting with his feet in it. Had some chicken broth thickened with arrow-root made for him, but he could not be persuaded to take more than two table spooonsfull of it. Talking incessantly all sorts of nonsense.—2 P. M. Drank *before me* twenty dessert spoonsfull, *at least*, being nearly a soup plate full of the broth and arrow-root (made thinner), and was only convulsed twice while in the act of swallowing it;—sitting with his feet in warm water all the time. Says he does not mind the sight of a dog *now*, and such is the case, for Rover was standing near me and he did not start. Pulse 100 and somewhat fuller.—3 P. M. Gave him 20 grains of calomel without opium in treacle, but he had great difficulty in getting it down.—4 P. M. Warm bath for his feet repeated. Not the least inclination for sleep. Shewed a small piece of sugar-cane, but could not swallow the juice. He has passed urine to the knowledge of his fellow-servants;—constantly screaming and talking. If contradicted he falls into paroxysms of rage; I have therefore desired the servants to give way and let him have whatever he wants. The struggle cannot last much longer.—6 P. M. In the same state, but evidently weaker. Has had no stool since the forenoon, and I am in doubts whether he had more than one from the last dose of jalap. Gave him 30 grains more, but he could only suck half, and that with such convulsive efforts that his whole body shook as if he were in the cold fit of an intermittent fever. Death now would be a *boon* to him. His horror at seeing a dog has returned with great aggravation.—8½ P. M. Has had a black fluid evacuation, which he shewed me in a chillumchee. I may as well mention here, that he has been in the house for some time.

His tongue has lost its former *bright* shining red appearance, and is now of a pale red, but perfectly clean. Pulse rapid, small and feeble; skin cold and clammy. He has still, however, a great deal of muscular strength, and is very noisy. Clamorous for food. Ordered the khansamah to give him arrow-root, but I don't think he will be able to get any of it down, as he gasps for breath and is dreadfully convulsed at every attempt he makes to swallow.

January 12, 1834.—The poor man sent word to me at daybreak this morning that he had passed three pups in his urine!!! He was raving all night and very abusive to his friends. He had another stool after I went to bed, which they preserved for my inspection It was of a dark green color, slimy and pretty copious.—6 A. M. Symptoms of ptyalism, face swelled and saliva flowing *spontaneously* from his mouth, but no melioration in the disease. Skin cold and clammy. Pulse scarcely perceptible and the strokes feel thready. It is wonderful, however, how his strength keeps up. He can walk without assistance, though not steadily, and is as noisy as ever.—8 A. M. Came from the stable to the house and made urine in an earthen vessel close to the door. It appears limpid, and contains no sediment. He took a table spoonfull of arrow-root in his mouth to oblige me, and attempted to swallow it but could not do so. A hopeless case, and nothing further prescribed for him.

It would appear he loathed food as well as water, and had two or three sleepless nights before he spoke to me on the subject of the pain in his head. I may add that I have seen six cases of hydrophobia since my arrival in this country, but could not produce ptyalism in any one of them. They were not treated alike, but *all* terminated fatally.—10 A. M. Strength diminishing rapidly. He asked for oil to rub over his head, and it was given to him.—11½ A. M. In a dying state, but the struggle is *shocking* and *dreadful in the extreme;* in a

fit of frenzy he seized his daughter (7 years old) by the arm and put his mouth to it, but fortunately did no harm. Of all the horrible diseases incident to mankind this surely is the worst.—12 P. M. His struggles are still awful. I have allowed no one to go near him but myself.—12¼ P. M. Breathed his last.

C. STUART, *formerly Surgeon on this Est.*
Hurripaul, Jan. 12, 1834.

VACCINATION, &c.

BY DR. JACKSON.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Gentlemen,—As such notices I presume will not be unacceptable to yourselves or your readers, more especially in a country like this where small pox is apt to break out at times in a violent and extensive epidemic form; I have the pleasure to forward the result of an experiment made by me with variolous matter on the model of those instituted by Dr. Sunderland of Barmen. I had much difficulty in prevailing on the parents to submit their children to the first experiment, and I delayed performing the regular vaccination for some time in order to make the trial more satisfactory. I have not heard of the occurrence of variola vaccinæ naturally among the cattle during the hot season, but have been promised information on the subject from respectable sources. As far as I am yet able to judge from the result of this experiment, I can discover no identity between the disease thus produced on the cow and the genuine vaccine disease as it appears on the human frame. And never having witnessed the variola vaccinæ among cattle, I am not prepared to give an opinion. The disease of the cattle as described by authors, and that produced in the experiments I performed, had this striking difference—that on them the udder and teats were the chief seat of the complaint; while with the cows under my observation these remained entirely free from affection.

It may be matter of interest among the profession to learn the result of the employment of the regenerated virus supplied by Mr. McPherson from Moorshedabad. I subjoin a statement of persons vaccinated with it.—I have, &c.

(Signed) A. R. JACKSON, M. D.
Calcutta, Jan. 20, 1834.

Memorandum of persons vaccinated at the Presidency from the Moorshee dabad Vaccine Virus, 21st Dec., 1832, to 4th Oct., 1833.

Names of the Vaccinators.	*Caste.* C.	M.	H.	*Total of each*
Kistomohun Acharjee	133	116	107	356
Razchunder Acharjee	8	16	89	113
Goluck Acharjee.....	0	47	48	95
Gobindo Acharjee.....	17	34	91	142
			Total	706

The above is the return of persons vaccinated with the regenerated virus from Moorshedabad. No perceptible difference was observed either by myself or vaccinators between it and the virus formerly in use.

Experiments from Variolous Matter on the Cow.

Wednesday, 22d May, 1833.	Covered the sheet at 2 o'clock on the 1st Cow. Fever came on the 3d day, Friday, the 24th May, and she refused food altogether, but drank water at times for 4 days. The pustules appeared on Sunday, the 26th May, on the hips and shoulders; the udder remained quite free; crusts were taken on the 8th day, the 29th May, from which the children were inoculated; the crusts fell off, and she was entirely clean on the 14th day.
Thursday, 23d May, 1833.	Covered the 2d Cow at 2 o'clock; sickened with fever on the 3d day, Saturday, the 25th May; refused food but drank water and bran gruel. The pustules appeared on Monday, the 27th May, on the hips and shoulders; died on the 9th day, Friday the 31st May. No pustules taken from this Cow.
F riday, 24th May, 1833	Covered the 3rd Cow at 2 o'clock; sickened with fever on the 3rd day, the 28th May, and the fever left her the same day. The fever again returned on the 1st June. The pustules appeared on the 4th June chiefly on the shoulders; for 4 days she disliked food, but did not refuse it entirely, and she was clean on the 9th day.
Saturday, 25th May, 1833	Covered the 4th Cow at 2 o'clock; but she shewed no design of illness for some days; slight fever appeared on the 9th day, Sunday, the 2d June. She never refused her food altogether, but eat little. The pustules appeared on the 4th June, and dried in 2 or 3 days.

Memorandum of Inoculation from the contents of the pustule on the Cow.

Names of the subjects.	*Remarks, &c.*
Ghussee....	Rose at first tolerably well, but about the 4th or 5th day began to decline, and finally disappeared on the 9th; not heard of since.
Rammah ..	Followed much the same course, but disappeared on the 8th; was regularly vaccinated in the usual manner at the expiration of 10 weeks, and had six perfect well formed vesicles.
Rajuddy ...	No appearance. 20 days after died of fever.
Bhirrungu..	No appearance
Gonggah ..	No appearance. Were vaccinated after 7 weeks and did not shew any thing either.
Bhootow ...	No appearance. 2 months after died of fever.
Bhuttiah ..	No appearance. Vaccinated after 8 weeks and had six good regular vesicles.

A. R. JACKSON, M. D.
Superintendent of Vaccination.

ANALYSIS OF BOOKS.

ABSTRACT OF THE EDINBURGH MEDICAL AND SURGICAL JOURNAL FOR JULY, 1833.

The first article is one from the pen of Dr. J. Paget, entitled *Supplement to the Essay on the Classification of Cutaneous Diseases, presenting a view of that of M. Alibert.* Some years ago (1806) M. Alibert commenced the publication of a work on cutaneous diseases, containing a series of the most splendid engravings, but deficient in arrangement and classical nomenclature. At this period the knowledge of diseases of the skin was at the lowest possible ebb in France. M. Alibert's first endeavour, on applying to the study of these diseases, was the determination of species, and, as far as possible, the formation of genera, leaving the classification and nomenclature to a later period, when these first points should have been fully settled.

About this time, Dr. Willan began the publication of his well-known work on the very opposite principles. He adopted and modified a system, and applied the diseases to it. The labours of each were unknown to each other, for war had completely cut off the communication between France and England. Willan's system, from its apparent simplicity and certainty, was generally adopted in England and extensively on the continent; while M. Alibert's work, from the circumstance already mentioned and its costly form, was confined to comparatively few.

After having completed the establishment of the species and their union in genera, M. Alibert commenced a reform in the nomenclature, and a general methodical arrangement; but it was only last summer he commenced its publication. Of this work as yet only four numbers have appeared; and as it is to be on the same splendid scale as the former one, containing at least one folio engraving of every genus, some time must elapse before it can be completed. To supply in some degree this deficiency, Dr. Paget has drawn up his supplement. In the original the title of each group is French. These altered to terms more analogous to our medical nomenclature, are as follows:

Eczemata; Exanthemata; Tineœ; Serpigines; Cancrodes; Leprodes; Aiscrodes; Strumæ; Psorodes; Hœmatodes; Dyschromata; Heteromorphea.

In noticing the different groups, we can only afford space and time to refer to the genera; as a consideration of the variety of species arising from each would lead us far beyond our limits.

Group I. Eczemata. The diseases included under this group are characterized by acute inflammation of the skin, always accompanied by more or less pain. These affections are most local in their origin, but the constitutional irritation produced by the eruption is often sufficient to induce secondary fever. They sometimes depend on constitutional disturbance; gastro-intestinal irritation is the most common cause. The pain may be burning, itching, pungent, tensive, gnawing, or throbbing. The first *genus* of this group is the *Erythemata*, a disease which shows itself on one or more parts of the integument, by red, inflamed, circumscribed elevations; varying in extent, and generally ending in desquamation, or slight furfuration (bran like exfoliation) of the epidermis. The *second* genus is *Erysipelas*, being an inflammation of the integuments, occurring in all parts of the body, but especially the face, arms and thighs, with an eruption of a yellowish red colour rarely of a deep red; this redness disappears momentarily on pressure. This is heat, with an itching, burning or throbbing pain; often attended with large irregular vesications, &c. The fever is primary or secondary. The disease may terminate in resolution, desquamation, suppuration, or gangrene.—Genus 3. *Pemphix.* An inflammation manifesting itself on one or more parts of the integument, bullœ or vesicles, irregular in size and form. These in a few days become flaccid and subside; in some cases they burst. Redness, vesication, and burning pain are the elementary phenomena of this painful disease.—Genus 4. *Zoster*, (*Herpes Zoster* Willan.) An inflammation with eruption of agglomerate vesicles surrounded by a red, inflammed areola. The vesicles generally arrange themselves in the form of a girdle round one half of the body from the spine to the *linea alba*. They sometimes assume other situations, as the side of the neck, in the form of a cravat, or on the knee like a garter; on the posterior part of the trunk, or about the shoulders. The pain is burning and tingling; sometimes shooting, and so severe as to prevent rest. After some days, generally about twelve, the vesicles dry, and leave red spots on the skin, which eventually disappear.—Genus 5. *Phlyzacion* (*Ecthyma*, Willan.) A vesico-pustular inflammation, commonly appearing on the thighs, arms, forearms, and often in the interstices of the fingers, or on the backs of the hands. At first the skin inflames, reddens, and rises in a point; a large pustule soon forms, and fills with a sero-purulent fluid. The pustule at length dries, and forms a brown scab.—Genus 6. *Cnidosis* (*Urticaria*, Willan.) An inflammation which extends to one or more parts of the surface, and is marked by an eruption of patches, spots, blebs or wheals, more or less prominent, pale in the centre, surrounded by a slight blush of redness, coming on spontaneously, disappearing almost instantly, or remaining for an indefinite period, and accompanied by severe itching or tingling like that produced by the sting of nettles. It terminates by resolution, or passes off with slight desquamation.—Genus 7. *Epinyctis.* An inflammation of one or more parts of the integument, with eruption of a papular or pustular form, the accompanying symptoms of which (excessive smarting or itching) commence and increase in the course of the night, and recede during the day. The parts usually cover-

ed suffer most severely, while in *cnidosis* the very reverse is observed.—Genus 8. *Olophyctis (Herpes phlyctænodes*, &c., Willan.) An inflammation manifested by vesicles, collected into circumscribed patches appearing on one or more parts of the integument. These vesicles, the bases of which are highly inflammed, fade quickly, and dry about the seventh day. They are followed by scabs or grey scales, which fall off and leave for some time a red skin beneath.—Genus 9. *Ophlyctis (Aphthæ*, Willan.) A superficial inflammation of the mucous membrane, with the formation of vesicles of a white or ash-grey colour, generally occupying the lips, the interior of the mouth, the gums, the tongue, the roof of the palate, the tonsils, or the pharynx. These vesicles sometimes extend as far as the stomach or even through the whole alimentary canal; they may spread also to the larynx, and down the bronchial tubes. This disease attacks children and adults; it occurs also in the old and the debilitated. The disease may exist with or without fever. It may terminate by desquamation or by ulceration.—Genus 10. *Pyrophlyctis.* An inflammation showing itself generally by a vesicle on the surface, containing a purulent matter or an acrid sanies. It excites a tingling pain, and terminates in scab or ulcer. This *phlyctæna* is almost always single, it being excessively rare to see many existing at the same time. *Pyrophlyctis* is reported contagious.—Genus 11. *Carbunculus.* An inflamed swelling, circumscribed, round, hard, and resistent, which has its seat in the cellulur tissue of the skin. It is at first of a livid red colour, it then becomes black in the centre, and, finally, through its whole extent. It is surrounded by one or more lenticular vesicles. It is rapid in its progress, converting the soft parts into a brown or grey slough. *Probably* contagious. It occurs in domestic animals as well as man.—Genus 12. *Furunculus.* An inflammation characterized by a hard, and conical, and pyramidal tumour, with lancinating pain, of a dull red colour, varying in size from a juniper berry to a filbert or a pigeon's egg, terminating in suppuration, with the evacuation of a false membrane or slough. The suppurative matter may escape by one or more openings. In some cases the inflammation is slow, the symptoms are chronic and unattended by pain, the swelling softens, dries, and is covered with a slight scab without the discharge of any membrane like substance.

Group II. Exanthemata. These are characterized by eruptions of various kinds, preceded by a fever of fixed duration which declines as the eruption disappears. The latter goes through certain regular periods, and occupies only a fixed time, when it gradually recedes and ends by desquamation. It is frequently followed by a second accession of fever. These diseases generally occur only once, and are especially observed in the earlier periods of life. The eruption, which prevails more or less over the whole body, is mostly redness and swelling; but there is not, as in the last group, the pain of inflammation, though the surface is often tender and irritable.—Genus 1. *Variola*, an acute febrile contagious exanthema, characterized by phlegmonous pustules on the surface which appear between the third and fifth day from the commencement of the fever, then fill with purulent matter, become depressed in the centre, and dry into scales, which eventually fall off, leaving after them spots, depressions, or cicatrices of various depths, and durability. It usually occurs only once in life.—Genus 2. *Vaccina.* A contagious exanthema characterized by large circular pustules, depressed in the centre, prominent at the circumference; surrounded by a red inflamed efflorescence containing a viscid fluid, which dries and becomes a scab. This scab turns brown, and falls of about the 25th day, leaving a large reticulated depressed cicatrice. It can only occur once in the same individual.—Genus 3. *Clavis.* A febrile exanthema peculiar to sheep, excessively contagious, characterized by flat circular pustules, which are compared to nail heads. The pustules are chiefly observed on those parts of the skin least covered with wool, as the inner side of the shoulder and leg, &c. It only attacks once during life.—Genus 4. *Varicella.* A contagious, but not severe exanthema, preceded by slight fever, characterized by an eruption of vesicles or pustules, somewhat analogous to those of *variola.* They are sometimes distinct, sometimes collected together, and generally terminate about the fifth or seventh day, with a slight furfuraceous desquamation, which rarely leaves any cicatrice. It occurs only once in life.—Genus 5. *Nirlus. (Nirles* of Scotland.) An exanthema characterized by distinct, prominent papulæ of a dull red colour, appearing after an ephemeral fever; never suppurating, but terminating by absorption, or occassionally by desquamation.—Genus 6. *Roseola.* A fugitive exanthema which manifests itself on one or more parts of the surface, by spots of a rose red colour, appearing and disappearing in the course of four and twenty hours. It is almost always preceded by a slight febrile paroxysm.—Genus 7. *Rubeola*, An acute febrile exanthema, contagious, marked by an eruption of spots of a bright red colour, afterwards becoming darker, commencing on the face, and thence gradually spreading over the trunk and extremities, and terminating by furaceous desquamation. The disease commences with frequent sneezing or dry and hoarse cough, lacrymation, and redness of the eyes. It occurs but once during life.—Genus 8. *Scarlatina* (scarlet fever.) An acute febrile and contagious exanthema, characterized by small red spots or large patches of a scarlet colour, often mixed with miliary vesicles. The eruption commences on the face, and passing thence to the neck, spreads over the rest of the body. It is accompanied by redness and pain of the throat, and terminates after nine days by desquama-

tion. It rarely attacks the same individual twice.—Genus 9. *Miliaria.* An acute febrile exanthema, reputed contagious, characterized by an eruption of white or reddish vesicles of the size ef a millet-seed distinct, filled with a serous fluid of a white red, or purplish colour, bursting the second or third day, terminating in a scurfy powder.

Group III. Tineæ. Characterized by irritation of the hairy scalp, with a hyperemic state of its vessels, attended by itching, and a sort of tensive pain more or less violent as the disease is more or less deeply seated in the dermatic tissue. The proper seat of these affections is always the hairy scalp; and it is only by a kind of *error loci* that they sometimes occur in other parts of the body. They are mostly chronic diseases, proper to infancy and childhoood, yielding with difficulty to remedies, and if cured suddenly, generally producing severe constitutional disturbance, but commonly disappearing spontaneously at puberty. The most common exciting cause of this group of diseases is the want of cleanliness and wholesome nourishment. They are all attended with diseased alteration of the cutaneous secretion, giving rise to morbid products, of a more or less fetid smell generally without ulceration or pustulation.—Genus 1. *Achor. (Porrigo larvalis,* Willan.) A tinea characterized by thin incrustations, sometimes distinct and separate, sometimes united in extensive patches, having their seat in the hairy scalp, round the ears, the forehead, the temples, the face. These incrustations are the result of an abundant flow of mucosity, which dries and leaves lamellæ of a pale yellow colour.—Genus 2. *Porrigo.* Presents itself under several different aspects; sometimes it is marked by small scales flat or convoluted, developed at the root of the hair, and separated easily from it by scratching; sometimes by brown irregular scabs pliable under the finger, often very hard, resembling the grain of certain plants; and sometimes by simple roughness or cracking of the epidermis, which leads to partial baldness. This affection is accompanied by an itching more or less intense. The scalp is often bathed with a fetid humour, not unlike rancid butter.—Genus 3. *Favus.* Usually occupies the hairy scalp, although it may exist in any other part of the body. It is characterized by scabs, or rather rounded incrustations, of a yellow colour, alveolar, or cup-shaped, depressed in the form of a honey-comb. These scabs or incrustrations are sometimes distinct, sometimes contingent, spreading over a greater or less extent of surface; sometimes united and conglomerate, forming thick round isolated patches.—Genus 4. *Trichoma (Plica Polonica* of authors.) An endemic tinea, generally preceded by pain of the head, and a furfuraceous desquamation of the scalp. It is sometimes characterized by pains in the joints, sometimes by atrophy of the nails, and ond an extraordinary interlacing of the hair, which is either divided into several rope like appendages, or united into one solid compact mass, and attended by fetid, or sometimes sanious exhalation. It may surprise the English physician to learn that M. Alibert entertains considerable doubts as to the contagious nature of any of the tineæ. A number of experiments have been made at the Hospital of St. Louis, to communicate the disease by inoculation, but without success; plasters even have been made with the incrustations of Favus, supposed to be the most contagious form, and worn by healthy children for some time without any result which could warrant the suspicion of contagion. These are certainly strong facts, and as yet we know of none of sufficient authority to overthrow them.

Group IV. Serpigines. Is composed of chronic diseases, rarely attended with much pain, consistent with a perfectly healthy performance of all the vital functions, and particularly characterized by a disposition to spread or creep (*serpit per totum corpus*) from one part of the surface to another. These affections are little influenced by treatment, and after having been once established, are particularly liable to return. They are not confined to any age, sex, or condition.—Genus 1. *Herpes (Lepra and Psoriasis,* Willan.) A disease characterized by a collection of very minute serous vesicles, terminating in scurfs or scales forming one or more irregular patches on one or more parts of the integument, and attended with less or more itching. Generally accompanied by fever. These patches may increase in size by gradually and insensibly extending themselves over the surface, or they may entirely disappear in one part, and show themselves afresh in another.—Genus 2. *Varus (Acne,* Willan.) A disease essentially characterized by spots, pustules, tubercles, or excrescences of various form, size and figure, which alter the features and modify the skin of the face in various degrees, and which may extend also to other parts of the body.—Genus 3. *Melitagra (Impetigo,* Willan.) An affection marked by an eruption of small pustules sometimes distinct and disseminated, sometimes confluent and congregated in clusters, yielding a sero-purulent secretion, which coagulates on exposure to the air and forms yellow incrustations or scabs, in appearance precisely resembling concrete honey, or gum, which exudes from certain trees.—Genus 4. *Esthiominos (Lupus,* Willan.) A disease most frequently characterized by tuberculous inflammation, attended with itching, redness, and heat. The most remarkable phenomenon of the disease is its disposition to corrode or *ulcerate* the skin and subjacent tissues, either by confining itself to one spot, or by passing successsively to different parts, in a creeping and tortuous course. This group includes those diseases which in France are commonly known under the name of *Dartres,* and which were formerly known in England under a corruption of the same word

Tetters, though the term is now almost obsolete. Diseases, however so common will have vulgar names, and the uninitiated have therefore called them *scurvy*, from the scurf or scale which they so often present. Some have again corrupted this simple term into *scorbutic affections*, and thus united them to a totally different disease; while Willan, to complete the confusion, called the most common form *lepra*, a name at which biblical history has taught us to tremble. It would not be difficult to show that this strange misnomenclature has had its effect in leading astray many of our brethren, among whom the persuasion of the hereditary descent, the incurable nature, &c. of these complains is far from rare.

The genus *Herpes* might at first sight be thought to include diseases of very different characters, since it comprises, in addition to the Genera *pityriasis*, *psoriasis*, and *lepra* of Willan, some forms even of *impetigo* and *eczema*; but if the opinion of M. Alibert be correct, that the disease commences with "minute serous vesicles," and that the formation of scabs is only secondary, the arrangement is perfectly natural and correct.

Group V. Cancrodes. These diseases are characterized by their slow and insidious attack, by their induration, subsequent ulceration, and tedious duration, by their resistance to all internal remedies, and their disposition to return in the neighbouring or remote parts after removal by operation. The *cancrodes* are attended by a consecutive fever, and mostly accompanied by very severe, deep seated, lancinating pains. They are probably hereditary; never contagious.—Genus 1. *Carcinus*. Characterised by a small tumour, at first indolent, then accompanied by slight itching, which induces the patient to scratch it, and eventually by a severe pungent and lancinating pain. It generally attacks the most sensible and irritable parts of the skin.—Genus 2. *Kelis*. A cancerous affection, characterized by one excrescence, rarely by more than one, more or less prominent, hard, resistent under the finger when compressed; sometimes cylindrical, sometimes round or square, flattened in the centre, elevated at the edges so as to form a border; the lateral parts project like roots implanted into the skin, sometimes resembling the cicatrix of a burn.

Group VI. Leprodes. This group includes several important constitutional affections, manifesting themselves by local degenerations and morbid alterations of various forms, and generally attended by more or less diminution of the sensibility, or numbness of the part affected. They attack insidiously, and almost insensibly; resist all known means of cure; are exceedingly chronic in duration, and rarely terminate but with life. They are frequently hereditary in origin, but seem particularly favored by certain climates and situations, by bad food, sordid living, and mental depression. The dermatic tissue is affected through its whole thickness, and often morbidly hypertrophied. Not contagious. (?)—Genus 1. *Leuce* (*Zaarah* of Moses, the Leprosy.) A lepra characterised by spots, at first white, afterwards of an ash-grey, or sometimes of slightly green colour, circumscribed, round, surrounded by a red areola, passing through regular periods, and becoming eventually of a horny consistence, depressed in the centre, and deprived of sensibility. In some cases the disease appears in orbicular rays or rings like those observed on the skin of serpents. Genus 2. *Shiloplaxia*. A lepra characterized by irregularly furrowed, tubercular incrustations, offering a rough unequal surface, intersected by deep fissures. These incrustations, which form patches of various sizes, on one or more parts of the integument, have a greater extent and greater thickness than those observed in any other disease of the skin. When the scab falls off, the cicatrix which remains is never obliterated.—Genus 3. *Elephantia*. Characterised by spots, generally circular, of a yellowish-brown, or sometimes of a livid red colour, which are followed by roughness and irregularity of the surface, and by the formation of fissures and tubercles. The skin loses its sensibility in many parts. The disease is especially marked by the great tumefaction which prevails through the whole thickness of the integument. The change or deformity which it produces of the features, is one of the most striking phenomena of the affection; the swelling of the hands and feet, as well as of the articulations, is also a common symptom.—Genus 4. *Radesyge*. An endemic disease, commencing by heaviness, lassitude, torpor, and insensibility of the limbs, with noctural pains of the joints, which terminate in the morning with clammy viscous sweatings. The face is sometimes pale, sometimes red or bluish. After some time spots more or less distinct make their appearance, followed by nodosities, furrows, cracks, tubercles, callosities, and callous ulcers.

Group VII. Aischrodes. A group of exceedingly contagious diseases, frequently propagated by sexual intercourse, attacking by preference the head, face, and organs of generation. The cutaneous eruption is often preceded by a slight febrile attack. These diseases are slow in their progress, and are liable to affect secondarily almost every tissue of the body, especially the osseous. It seems probable, though it is not sufficiently well established to warrant us in considering it as a character of the group, that mercury possesses an almost specific power in all these affections. Genus 1. *Syphilis*. A contagious disease, more or less rapidly contracted by impure contact, generally characterized externally by spots of a coppery-colour, by pustules, vegetations, excrescences, ulcerations, swellings, tumours, and imposthumes; internally by caries and deeply seated pains in the bones.—Genus 2. *Mycosis*. A contagious disease, characterised by fungous excrescences, which manifest themselves principally on the face, hairy scalp, and

about the organs of generation. These excrescences, in form resembling the fruit of the mulberry or strawberry, give out a yellow, fetid, and viscous humour. They occasionally form tumours of considerable size; sometimes they are attended by coryza, hoarseness, ulceration of the tonsils, pains of the bones, &c. &c.

Group VIII. Strumæ. These are chronic affections of the skin, of various forms, generally with glandular swellings, which are apt to terminate in ulcerations, and are little affected by any known remedy. The *strumæ* are undoubtedly hereditary, and seem to depend on a certain constitutional diathesis, the nature of which is little understood, but which may show itself in every tissue of the body, and would seem to consist essentially in a disposition to deposit tuberculous matter.—Genus 1. *Scrofula*. An affection which declares itself in one or more parts of the integument by the hypertrophy, induration, and prominence of the lymphatic glands; by the formation of spots, scales, tubercles, and pustules, followed by ulcerations, incrustations, hypertrophies, cellula, vegetations of the skin, &c. These tumours or swellings, the result of a morbid change, as yet but little understood, have their special seat in the glands, as the parotid, submaxillary, sublingual, cervical, &c. The genus, taken collectively, presents itself under two opposite aspects; in the one, the patient has a florid colour, and the external appearance of a healthy and robust constitution; in the other, the face is thin and pale, the eyes dull, and the whole appearanee that of wasting and decay.—Genus 2. *Farcimen*. Farcy or glanders, an affection peculiar to domestic animals, especially characterized by the developement of a greater or less number of small tumours, globular or oval, flattened or elongated, circumscribed, resistent, placed immediately under, or in the substance of the skin, at first painful, but becoming indolent after some time.

Group IX. Psorodes. These diseases are specially marked by a severe sense of itching, which, though not peculiar to the *psorodes*, is in them so much more constant and important a symptom than in any other of the *Dermatodes*, that it has been justly selected to characterize the group. The form of the eruption is various and uncertain, and is sometimes accompanied by the presence of *pediculi*. These diseases are almost peculiar to the filthy and ill-fed; they are little inclined to cure spontaneously, but, except in certain forms, yield readily to treatment, Genus 1. *Scabies*. An eruption common to man and many domestic animals. This disease, in its true form, is eminently contagious. It is marked by vesicles, pointed at the top, wide at the base, generally distinct, yielding a fluid commonly serous, but sometimes purulent; especially characterised by violent itching. This disease attacks alike either sex, and every age. It extends over the whole body, *except the face*, but is most common about the interstices of the fingers, the inner surface of the wrists, the folds of the elbow and knees, under the axilla, on the lateral parts of the abdomen, on the thighs, &c.—Genus 2. *Prurigo*. A non-contagious eruption, characterized by papulæ, occupying one or more parts of the integuments, varying in number and extent, sometimes red, but more frequently of the colour of the skin, and often interspersed with small black scabs produced by scratching. The appearance of these papulœ is always attended by an acute sensation of itching, which must be in this case regarded as a special and characteristic symptom.

Group X. Hœmatodes. This group is composed of a peculiar class of affections characterized by discolouration of the skin caused by an effusion of blood under the epidermis. On what this curious phenomenon may depend, is yet a mystery; but it is probable that it arises either from disease of the minute blood-vessels, or perhaps more likely from a morbid state of the vital fluid itself.—Genus 1. *Pelisis*. (*Purpura*, Willan.) An affection characterized by spots of a red, purple, or livid colour, occasionally of a very considerable size, sometimes but small, arising from the effusion of blood between the cuticle and true skin, and accompanied by hæmorrhages which are excited by the slightest causes. These spots are sometimes distinct, sometimes in groups; they are rarely attended with fever.—Genus 2. *Pelechia*. An affection characterized by small spots scattered over the surface of the skin, generally of a red colour, though often livid, violet, or black; sometimes resembling flea-bites, sometimes small freckles; with or without fever; remaining a longer or shorter period; varying much in size, sometimes forming an almost imperceptible point.

Group XI. Dyschromata. This group includes a number of rather curious than important affections, characterized solely by anomaly either of excess or defect of the colouring matter of the skin. They may be congenital or accidental.—Genus 1. *Pannus*. An affection characterized by one or more spots, disseminated or collected together in a greater or less quantity on the surface of the human skin, of which the form and colour are more less anomalous. Genus 2. *Achroma*. An affection characterized by white spots, quite different from the natural colour, generally oval, of various extent, sprinkled over the body like drops of rain. The power of sensation is frequently either partially or entirely lost in the affected parts. The decoloration is sometimes universal.

Group XII. Heteromorphea. Under this group are included a number of affections which appear to have no definite relation to any other known diseases, nor to possess any affinity with each other, and which are therefore arranged together merely for the sake of convenience.—*Genus* 1. *Ichthyosis*. An affection which appears on one or more parts of the integument, in the form of scales, more or less

hard and resistent, of a pearly or grey colour, imparting to the human body the appearance proper to the skin of fish or serpents.—Genus 2. *Tylosis (Corns.)* An affection characterized by dry, hard, lamellated callosities, moveable or fixed, formed in the cellular layer of the skin, mostly occurring about the sole of the foot, and in the toes. They are almost always brought on by the pressure of tight shoes, which pressure, if continued for any length of time, inflames the skin, and renders it exceedingly painful.—Genus 3. *Veranca.* An affection characterized by sessile or pedunculated excrescences, somewhat moveable, sometimes fixed, and nearly of the natural colour of the skin. Their surface is hard, rugged, and almost indolent. This kind of vegetation is for the most part scarcely susceptible of inflammation.—Genus 4. *Onygosis.* An affection characterized by inflammation, with pain, redness, and swelling of the matrix of the nail, and malformation, induration, or other morbid change of the substance of the nail itself.—Genus 5. *Dermatolysis.* An affection characterized by an unnatural extension of the skin, arising from a peculiar change in the contractile power of this membrane.—Genus 6. *Nœvus.* A congenital affection, characterized by spots, most frequently solitary and scattered, by vesicles, cysts, warty or steatomatous excrescences, of an infinite variety of forms and colours.

Art. II. *Anatomical and Physiological description of the Otic Ganglion*, translated from the original German of Arnold. It is almost impossible to give a precise idea of this auricular ganglion, (called by Professor Tiedemann, *Ganglion Arnoldi*) without the aid of the plate that accompanies it. It is situated at the internal side of the third branch of the *trigeminus*, immediately under the *foramen ovale*, a little above the point where the superficial temporal nerve is given off. Internally the ganglion is covered by the cartilaginous part of the Eustachian tube, and the origin of the *tensor palati*, behind it borders on the *arteria meningea media*, and its external surface is situated on the internal side of the third branch of the fifth pair. It has an oval form, flattened on either side. It is characterized by a reddish appearance, verging a little towards grey, and is of soft consistence. It is a fact well worth attention that the otic and nasal ganglions, which belong to the same order of ganglions, present in the human subject and the calf, with regard to their external character, a relation quite opposed to each other. For the otic ganglion in the human subject resembles in colour, consistence, and size the nasal ganglion of the calf, and the nasal ganglion in the human subject more the otic ganglion of the calf. The internal stratum of the ganglion is particularly characterized in appearing to consist of only a reddish grey ganglionic substance. Cutting into its substance, we observe at first sight only a soft pulpy mass, which in very fresh subjects only possesses any degree of consistence. From the detailed account of Arnold, it is clear that the *ganglion oticum* communicates partly with the *portio minor quinti paris*, partly with the ninth pair by means of the N. *tympanicus*, and lastly by means of the latter with the facial and auditory nerve. These anastomoses are all of importance in physiology, and therefore deserve particular attention. Lastly, we have to describe those nerves which derive their origin from the otic ganglion. They appear soft, delicate, reddish, and agree in their qualities altogether with the ganglion. The most important of them, and that which must be particularly attended to, as it shows the particular relation of this ganglion to the organ of hearing, arises at the superior and posterior part of it, and takes its course along the internal side of the *arteria meningea media*, backwards and upwards, penetrates into that part of the Eustachian tube in which the *tensor tympani* is situated, and ramifies on this muscle. Besides this there are other soft, reddish, delicate filaments arising from the otic ganglion, which show still more the near relation in which it stands to the organ of hearing. If we compare the external and internal qualities of the ganglion with the other ganglions belonging to the same order, as the ophthalmic, nasal, and lingual ganglions, we find that it bears great resemblance to the ophthalmic ganglion in situation, size, form, structure, and relation to neighbouring parts; approaches also in some degree to the maxillary ganglion, but differs mostly from the nasal ganglion. The otic and ophthalmic ganglions agree very much in relative situation, form, size and structure; and they communicate also with two different nerves of the animal system, a nerve for motion and sensation by means of branches which they receive from them; for the short but considerable filaments from the small portion of the trigeminus subservient to the motions of mastication, correspond with the short root of the ophthalmic ganglion coming from the *nervus oculomotorius*.

With reference to the function of the otic ganglion; it is not merely the anatomical character of it in the human subject and its analogy to the ophthalmic ganglion, so far as it has a relation to the organ of hearing, and especially to the membrane of the tympanum, similar to that which the other has to the eye, and particularly to the *iris*, that justify us in concluding the otic ganglion to have the same office in the organ of hearing that the ophthalmic ganglion has in the eye. Researches in comparative anatomy render it also most probable that the ganglion in question is the central organ for the involuntary motions of the membrane of the tympanum. The result of these researches is, that the otic ganglion is only to be found in those animals which have a *tensor tympani*. It would appear to be wanting in birds and amphibia, and to belong to the mammalia only. These researches also teach us with certainty that the otic ganglion is larger and more intimately connected with the organ of

hearing the larger and more developed the external ear is. From these two points it clearly results that the ganglion must be considered as the central organ for the involuntary motions of the membrane of the tympanum. This membrane, in acting as a means of protection, does not merely keep off the immediate effect of air and other injurious influences, but moderates the too powerful action of sound on the internal ear.

Art. III. *Notice of Aqua Binelli, with experiments,* by John Davy, M. D. &c. The water in question has for several years enjoyed some reputation in Italy under the name of *Aqua Balsamica arteriale,* or the more brief one of Aqua Binelli; the one derived from the properties attributed to it, the other from the individual who invented it. The properties attributed to it are not a little marvellous, such as the stopping both internal and external hœmorrhages, and even of the large arteries when cut transversely,—the cleaning and healing of all kinds of wounds; the renewal of uterine evacuations when suppressed, and the moderating them when excessive. An opportunity occurring for that purpose, Dr. Davy first examined into its physical and chemical qualities. It proved of the same specific gravity nearly as distilled water. It was neither acid, alkaline, nor saline. Its odour was not unlike that of coal gas not purified, which is lost by boiling. Its taste was rather pungent, not in the slightest degree astringent; in that it appeared to be merely water containing a little volatile oil or naphtha, and was probably prepared by distillation of water from petroleum, or some kind of tar. Dr. Davy next made trial of it as a styptic; he scratched the back of his hand with a lancet till the blood flowed. The water applied to the scratch rather increased the bleeding than stopt it. The following morning, in shaving, the razor inflicted a slight cut: the *Aqua Binelli* was again applied, and the result was the same. This, which occurred in 1831, convinced Dr. Davy that the thing was an imposition on the public.

A short time after his attention was recalled to the subject by a medical practioner of Malta (where Dr. Davy was residing at the time,) who had studied at Naples. Dr. Davy was invited with others by the gentlemen alluded to, to witness the effects of a preparation made in imitation of the Aqua Binelli, and which he maintained was identical with it in composition and virtues. The experiment appeared an unobjectionable one, namely, the partial division of the carotid artery of a goat, the bleeding of which he undertook to stop by means of his fluid. He allowed the spectators to expose the vessel and cut it across; about one-half of the circumference of the artery was divided, and the bleeding was most profuse. He stood ready with compresses moistened in the fluid, which he instantly applied the one over the other, and secured them by rolling a bandage about the neck, making moderate pressure on the wounded vessel. A little oozing of blood followed, which soon ceased. He said that in three hours the bandage and compresses might be removed, without any renewal of the hemorrhage. Accordingly at the end of three hours they were removed; but when the last compress was raised, the bleeding broke out as furiously as at first, and, to save the life of the animal, the artery was secured by ligature. On examining the last compress, a small coagulum of blood was found adhering to it, just the size proper to close the wound, in the carotid; thus accounting for the ceasing and renewal of the bleeding.

Reflecting on this result, and considering the chemical nature of the fluid employed to moisten the compresses, which appeared analogous to that of *Binelli,* the conclusion Dr. Davy arrived at was obvious; namely, that had the compresses used been moistened merely with common water, the effect would have been the same, the bleeding would have been stopped; and it also appeared very probable, that, had the compresses been allowed to remain undisturbed, there would have been no renewal of the bleeding. To ascertain the truth of those inferences, he on the 8th February, in the presence of several medical officers, divided the carotid artery partially transversely in two dogs. The bleeding was most profuse till compresses dipt in common water had been applied and secured by a bandage completely stopped the hemorrhage. The small dog was very feeble immediately and appeared to be dying but rallied, and seemed for several days to be doing well. It unexpectedly died on the 15th, seven days after the infliction of the wound. The bandage during this time had not been touched, and no application had been made. Now, on exposing the neck, the wound was found covered with coagulable lymph discharging pus; and on dissecting out the artery and eighth nerve contiguous to it, a mass of coagulable lymph was found lying over the wound in the vessel, extending about half an inch above and below it. This having been carefully removed, and the artery slit open, the vessel was found pervious —not in the least contracted. The other dog did not appear to suffer from the wound. The bandage and compresses were removed on the 15th February without the occurence of any bleeding. On the 28th of the same month, the wound in the neck was nearly closed by granulations. The artery was now exposed by incision; and the portion that had been wounded taken out, between two ligatures previously applied. On careful examination of this excised part it was found free from coagulable lymph; it was probably absorbed. When the external loose cellular tissue was dissected away, a very minute elevation, about the size of a pin's head, appeared on the side of the wound, the remains of the cicatrix externally, The artery was completely pervious, and not at all contracted where it had been wounded. Slit open for internal examination, the wound in the inner coat was marked by a red line interrupted by two

white spots; there was no gaping; the edges adhered together, excepting at one point, elsewhere the union was complete. The general results of these experiments are not without an application to surgery. They shew how a hemorrhage from the wound of a large artery, which by itself would be speedily fatal, may be easily arrested by moderate compression through the means merely of several folds of linen or cotton moistened with water; and they further shew how, under this moderate compression, the wound in the artery heals, the vessel remains pervious, without the formation of an aneurism; and how after a time, only slight traces of the wound are discoverable. Under this moderate pressure the healing of the wounded artery seems to be very analogous to that of a wounded vein, and apparently by means of the same natural process. Whether similar results would be obtained, were trial made of the same means in the wounds of arteries in the human subject, can only be ascertained positively by judicious experiments. The probability is that the results would be the same. Dr. Davy in saying nothing of the boasted efficacy of the *Aqua Binelli* given internally, trusts it to be as little necessary to make any comments on it now a-days, as on the tar-water of Bishop Berkeley so very analogous in nature and reputation.

Art. IV. *Contributions to statistics of the army, &c.*, by Hen. Marshal Esq. &c.—The object of this paper is two-fold: 1st, to furnish a few statistical facts in regard to the ratio of mortality among the troops in different climates or stations; and 2dly, to suggest a simple form for arranging the elements of statistical returns of corps, garrisons, or bodies of troops. We* cannot say that Mr. Marshal appears to us to have fulfilled either, nor is the dry nature of the paper with its long figured tables, of a character to interest our readers.

Art. V. *Observations on the character and treatment of Iritis, &c., by C. W. Riggs, Esq.* The paper opens with a minute description of the anatomical peculiarities of the iris. Inflammation of the iris may be considered as *simple* or *specific*, as it comes on in a healthy state of the system, or arises during the existence of what are called specific or constitutional diseases. Another division, like that of inflammation in other parts, into acute, sub-acute, and chronic, must not be omitted. The epithet *sub-acute* conveys a more accurate idea of the slower forms of this affection. The term of *chronic* denotes, in the general acceptation, the condition that remains after subsidence of active inflammation, or a slow and irregular species of inflammatory action. Cases of *iritis* are not unfrequent; yet forty years ago the disease had not been rocognized, or at least no account of it published. A German author wrote the first treatise on it. In Mr. Howard's work on the venereal disease the affection is noticed, and designated *venereal ophthalmia.*

Notwithstanding the frequency of the disease, and the lengthened notice of it in modern systematic works on the eye, and the able treatise of Mr. Lawrence on the subject, practitioners are not, it is feared, sufficiently acquainted with the disease, so as to discriminate the first indications of the affection, when the inflammation can, in almost every case, be arrested. If the disease can be ascertained sufficiently soon, the treatment is simple and successful. What symptoms then characterize it? On looking at an affected eye a peculiar arrangement of red vessels is observable. Towards the circumference of the globe they become distinctly visible, running forward in lines without any lateral communications; as they approach the *cornea*, a free anastomosis takes place, and a plexus is formed, a little external to the *cornea* of a pretty deep colour in general. This is a diagnostic mark of importance. The vessels being covered by the *conjunctiva*, exhibit a purplish tinge, and the lustre or clearness of the *cornea* will be diminished. But these signs of course vary in intensity. In very severe cases there will be diffuse redness. The zone and white line are not discernible; the cornea is opaque, with red vessels shooting over its surface; depositions of lymph take place between its *lamina*, and the patient's sufferings are commensurate. Such an attack ends in disorganization.

The first step in the treatment is the free abstraction of blood, if the inflammation be acute, and the strength of the patient do not contra-indicate its adoption. The intention should be that of producing a decided impression on the constitution; and the quantity of blood drawn must be proportionate to the accomplishment of the design. Any course of treatment without this preparatory step will be uncertain and injudicious. It lessens the local action, mitigates the general disturbance, and facilitates the curative operation of mercury. An acute attack may be destructive of vision in four or five days; and no time is to be lost in palliating means. The use of mercury is to follow immediately the abstraction of blood; it checks the action in the minute vessels, and prevents the inflammation from ending in adhesion. The sooner its effect is manifest, of course the better. Calomel and opium are in general use. They are to be given every third, fourth, and fifth hour; the calomel in doses of three to five grains, until its constitutional influence is unequivocal. As soon as the mercurial action is established, the pain and intolerance of light abate, the red vessels disappear, the motion of the *iris* is restored, the absorption of lymph is set up, the clearness of the cornea is restored in cases in which it had participated, and the aqueous humour becomes transparent. Whilst the crisis is being brought on, the extract of belladonna is to be smeared over the superciliary region and round the orbit, night and morning. Topical applications are unavailing; local depletion by leeches or cupping may be highly advantageous in

* Editors of the *India Journal of Medical Science.*

the course of the treatment. Cases will occasionally occur in which this treatment would be injudicious. There are individuals who cannot bear mercury in any quantity or form. Where this idiosyncrasy is known, mercury must not be given.

Art. VI. *Remarks on the malignant Cholera as it occurred in Manchester*, by Samuel Gaskell, Esq.—The disease first appeared in Manchester in June 1832, and continued to prevail till the close of the year, when it entirely abated. Mr. Gaskell appears to think the disease decidedly contagious. We deem it quite unnecessary to repeat the author's description of the disease. On examination of the bodies of those who died in collapse, he found great congestion in the head, chest, abdomen, and lower portion of the spinal cord; serous affections in the ventricles of the brain; ecchymosed spots beneath the serous covering of the solid viscera, and under the neurilema of some nerves, especially the *par vagum*, lingual, and splanchnics, &c. &c. &c.

On considering the great congestion of the blood (says Mr. Gaskell) in internal parts, we can be at no loss to account for the serous evacuations. This tendency to congestion, combined with physical changes in the blood and diminished quantity of this fluid, afford a solution of the failure of the pulse and the consequent phenomena; cramps of the extremities seem to be caused by congestion in the spinal canal. We find after death that congestion of blood has taken place to a greater extent in those parts of the canal whence the nerves arise. Not only do the morbid appearances support this view, but some countenance of it is derived from the treatment. Mr. G. has invariably found counter irritation over the loins to be the most sure means in the alleviation of cramps in the lower extremities. The stage of reaction or fever varies exceedingly in intensity and kind. In some the symptoms are so slight as to be scarcely worthy of notice. In others they are strongly marked, and soon lead to a fatal termination. They differ also in kind,—one class presenting the general character of *synocha*, the others having some resemblance to typhus. As one of several phenomena observed by Mr. Gaskell during his attendance upon cholera cases, he considers the most remarkable a marbled appearance of the integuments in the extremities and breasts. It occurs in the collapsed state, is confined to women, and is invariably a precursor of a fatal termination. The appearance is doubtless produced by a stagnation or effusion of blood in cellular tissue. Mr. G. states that the alvine evacuations in cholera frequently become bloody in the later stages of the disease. *Post mortem* examination demonstrated the seat of these effusions to be in the small intestines. Nothing is stated as to treatment.

Art. VII. is *an account of an extraordinary dilatation of all the thoracic portion of the œsophagus causing Dysphagia*; by Alexander Hannay, M. D.—In taking food the patient (a short middle aged man) experienced a sensation as if it were arrested in the œsophagus, a little way above the lower end of the sternum, giving rise to the most painful and protracted efforts to swallow. At a late period of the case this occasionally amounted to an agonizing sense of distention. The suffering was worse after a full meal. The difficuly of swallowing had existed from his boyhood. The doubtful and mysterious nature of the case led to a vague and ineffectual practice.

The man died suddenly one night of apoplexy after eating very heartily, and drinking intemperately. In *post mortem* examination, on turning the right lung to the left in order to cut it out, Dr. Hannay examined a long sac running in and parallel with the space, covering that column and projecting over it into the right side of the chest. It was distended with fluid. It was found that the sac in question was the œsophagus enormously dilated and distended with ingesta. The dilatation began immediately on its entrance into the chest. The cervical portion was perfectly natural. It gradually grew wider till it reached the middle of its course in the thorax. There the sac measured, as it lay collapsed on the table and unopened, rather more than three inches across, or when fully distended with fluid, more than six inches in circumference. At the aperture of the diaphragm it was of its natural dimensions. The parietes of the tube were several times their ordinary thickness, dense and strong, and all trace of muscular texture lost—so that the appearance on being cut was somewhat that of a piece of sole or thick leather.

Art. VIII. *Case of ruptured Uterus during parturition, followed by internal abscess, and eventual recovery.* By John Dunn, Esq.—The woman who formed the subject of this providential escape from almost certain death, was a Mrs. Stonehouse, aged 37, of pale complexion, and the mother of seven children. The accident took place during labour of her eighth child, on the 15th April, 1829, and after the rupture of the membranes, and full dilation of the os tincæ, she suddenly exclaimed "something has burst in my inside." Her countenance fell, the pulse became imperceptible, and the pains went away. The child was delivered, being first turned—but it was in a breathless state and could not be resuscitated. The ruptured portion was easily traceable with the hand, and on the left side the kidney could even be felt. She was up and well about the middle of May. In July 1830, Mrs. Stonehouse was again confined, but the child died in the birth, it being a breech presentation. Towards the end of the year 1831, Mrs. S. was delivered of a full grown living child, which at the date of the paper (February 9, 1833) was alive.

Art. IX. *Notes relative to the Pigmentum Nigrum.* By T. W. Jones, Esq.—As the posterior surface of the iris, and the anterior extremities of the ciliary processes are in contact with the aqueous humour, the pigment might be at first supposed liable to mingle itself with that fluid; but this is

prevented by a very delicate membrane which is found lying over the pigment on the posterior surface of the iris, enveloping the free extremities of the ciliary processes, and from thence reflected to the circumference of the capsule of the lens, and probably continued over its anterior surface. Mr. Jones is inclined to think that it terminates at the pupillary margin of the iris. This membrane, from its extreme tenuity, is very apt to be overlooked, unless carefully examined under water, when it appears distinctly but almost like a film. If a portion of this membrane be examined by the microscrope, it is seen to consist of very minute plates of an hexagonal form, accurately joined together by their edges.

Art. X. *Account of some new experiments on the sensibility of the skin, by Dr. Weber, Professor of Anatomy at Leipzig.*—The professor mentioned has lately performed a very simple and ingenious set of experiments, which illustrate the subject of the sense of touch, and furnish us with a mode of measuring with considerable accuracy the relative acuteness of this sense in different parts of the skin of the same or different individual. These experiments consist in placing the two points of a pair of compasses at different distances from each other, and in various directions upon different parts of the skin of an individual who is not permitted to see the bodies touching him, (the sharp points of the compasses may be blunted with a little sealing wax.) The professor thus found that, according to the distance of the two points from one another, we may have the feeling either of one only or of two tangent points, and that the distance at which we become sensible of the double impression is in the inverse proportion to the acuteness of the sense of touch in the skin; or in other words, that we recognize a double impression made on very sensible parts of the skin, although the points are situated very near one another, while in those parts of the skin in which the sense of touch is obtuse, the points may be removed to a considerable distance from one another, and yet convey to us the feeling of only one impression. A detailed account of the experiments, want of space precludes our giving The causes of the diversity of touch in different parts of the body, seem, on the whole, not to be well ascertained. It is sufficiently obvious that the greater sensibility of some parts of the body does not depend upon their being more frequently seen than others, as has been supposed by some; the middle of the back of the hand constantly exposed to view, is surpassed in sensibility by the fingers and palm, and even by the lower end of the forearm; the same is the case with the dorsum of the foot. Examples of blind persons also, and the great improvement their organs of touch are susceptible of from exercise, sufficiently show that the sight has very little to do with our power of distinguishing by touch different regions of the skin. The cause of these variations is probably to be sought for in the structure of the skin, with which we are as yet, as regards the distribution of the nerves at least, very imperfectly acquainted. It seems to be obvious, however, that the great power of touch does not depend on the presence of papillæ, for the mammæ and some other parts, with numerous papillæ, have yet a very blunt sense of touch. The tongue has papillæ over its whole surface; but is is only at the tip that the sense of touch is very acute. Many experiments seem to show that the direction of the course of the larger and smaller nervous twigs has some influence over the power of the skin, by which we distinguish the separate impressions of the points.

For an abstract of the critical analysis which forms the second part of the volume we cannot at present spare room.

Selections.

COLLEGE OF PHYSICIANS.

To the Hon. the Commons of the United Kingdom of Great Britan and Ireland, in Parliament assembled.

The petition of the undersigned Physicians, practising in London; humbly showeth,

That the charter of the Royal College of Physicians of London was granted by Henry VIII. for the advancement of medical science, and for the protection of the public "against the temerity of wicked men and the practice of the ignorant."

The six physicians were named in the charter, who, together with all men of the same faculty, then resident in London, were constituted one body, commonalty, or perpetual College.

That the perpetuity of the College was to by kept up by the future admission of all men of the same faculty into the College.

That several of the six physicians named in the charter studied at, and possessed degrees from foreign universities; and that no distinction is mentioned, as regards the university, where a physician may have obtained his degree.

That all physicians entitled to practise in London are equally entitled, under the charter, to admission to the fellowship of the College.

Your petitioners are prepared to show that by-laws have been framed and long acted upon, by the College, which are directly opposed to, and in violation of, the letter and meaning of the said charter.

That the physicians practising in London are invidiously divided by the by-laws of the College into two orders: one is denominated Fellows; the other, constituting by far the majority, is designated (and by implication degraded) by the term Licentiates.

That the Fellows have usurped all the corporate powers, offices, privileges, and emoluments attached to the College; that the Licentiates do not participate in these benefits, but are illegally excluded from all the offices and any share in the management of the corporation; and so far is this principle of exclusion carried, that the

Licentiates are not even admitted to the library or museum of the College.

That there exists no foundation in the charter, or in the acts confirming it, for such distinction of orders and consequent exclusion from all privileges.

That, according to one of the by-laws, no physician can claim admission as a Fellow unless he has graduated, or been admitted *ad eundem* at the Universities of Oxford or Cambridge, where medicine is imperfectly taught; while physicians who have graduated at the other British or foreign universities, celebrated as schools of medicine, are unjustly excluded from the fellowship by this obnoxious by-law.

That the College was admonished from the Bench by the Lord Chief Justice Mansfield, to amend their by-laws in reference to the admission of Licentiates into the fellowship; that, influenced by this censure, the College framed other by-laws, deceptive in their character, which, whenever they have been acted upon, have tended still further to depress and injure the order of Licentiates.

That the College demand and receive a large sum of money from the Fellows and Licentiates for the supposed privilege of practising as physicians within a circuit of seven miles round London, and that they do not and cannot protect them in this privilege.

That the graduates of Oxford and Cambridge are obliged to be members of the established church of England, and, consequently, all Dissenters are excluded from claiming the fellowships, your petitioners consider as a grievous injustice, and an act of intolerance unbecoming the present age.

That these invidious by-laws, made in the spirit of corporate monopoly, have involved the College in continued litigation, and created a jealousy between the Fellows and Licentiates discreditable to the members of a liberal profession.

That your petitioners with deference submit, that the College of Physicians, as at present constituted, is wholly inadequate to the due regulation of the medical profession in this country and the protection of the public; and further, that the charter of the College in no way provides for the practice of physicians in the several counties of England and Wales.

Confiding in the wisdom of Parliament, your petitioners, therefore, pray that your hon. House will institute such inquiry into the state of the medical profession in this country, and the College of Physicians in particular, as will lead to the framing of laws by which the evils complained of may be removed.

And your petitioners will ever pray, &c.

Gilbert Blane.	Whitlock Nicholl.
Henry Clutterbuck.	A. T. Thomson.
George Birkbeck.	John Sims.
W. Somerville.	James Copland.
Alexander Morison.	George Gregory.
Thomas Brown.	J. C. Somerville.
Alexander Henderson.	James Bartlet.
Charles F. Forbes.	John Webster.
Charles Locock.	Thos. Harrison Burder.
Neil Arnott.	Thomas Davies.
Roderick Macleod.	T. Southwood Smith.
John Veitch.	David Parry.
W. Gairdner.	Charles Holland.
William Russell.	John Foley.
Hugh Ley.	Francis Boot.
James Clark.	R. M. Kerrison.
Robert Lee.	C. J. Roberts.
Marshall Hall.	William Stroud.
William Whymper.	James Johnson.
Thomas Hodgkin.	Edward Rigby.
C. J. B. Williams.	Robert Richardson.
Alexander Tweedie.	G. G. Sigmond.
Henry Davies.	James Hope.
J. W. Crane.	A. T. Holroyd.
Theodore Gordon.	

WEEKLY ACCOUNT OF BURIALS, FROM BILLS OF MORTALITY.

JULY 2, 1833.

Abscess	1	Gout	2
Age and Debility	54	Heart, diseased	1
Apoplexy	5	Hooping-cough	7
Asthma	15	Inflammation	34
Cancer	3	Bowels & Stomach	6
Childbirth	5	Lungs and Pleura	4
Cholera	3	Influenza	1
Comsumption	64	Insanity	3
Convulsions	37	Jaundice	2
Croup	5	Liver, diseased	22
Dentition or Teething	3	Measles	5
Diarrhæa	2	Mortification	4
Dropsy	10	Paralysis	2
Dropsy on the Brain	17	Small pox	5
Dropsy on the Chest	2	Sore Throat and Quinsey	1
Epilepsy	1	Thrush	3
Fever	7		
Fever, scarlet	13	Still-born	23
Fever, typhus	1		

Increase of Burials, as compared with the preceding week 121

JULY 9, 1833.

Abscess	2	Inflammation	59
Age and Debility	74	Bowels & Stomach	7
Apoplexy	4	Brain	2
Asthma	47	Jaundice	1
Cancer	1	Liver, diseased	17
Childbirth	6	Measles	11
Cholera	12	Miscarriage	1
Consumption	94	Mortification	4
Convulsions	50	Paralysis	2
Croup	2	Small-pox	11
Dentition or Teething	6	Sore Throat and Quinsey	1
Dropsy	29	Stone and Gravel	1
Dropsy on the brain	30	Thrush	2
Dropsy on the chest	3	Tumor	2
Epilepsy	1	Venereal	1
Fever	8	Unknown causes	3
Fever, scarlet	11		
Fever, typhus	1		
Heart, diseased	1		
Hooping-cough	17	Still-born	18

Increase of Burials, as compared with the preceding week 176

JULY 16, 1833.

Abscess	3	Dropsy on the chest	2
Age and Debility	37	Fever	4
Apoplexy	8	Fever, scarlet	4
Asthma	10	Gout	1
Cancer	2	Hooping-cough	13
Childbirth	8	Inflammation	19
Cholera	28	Bowels & Stomach	8
Consumption	77	Brain	6
Convulsions	43	Lungs and Pleura	8
Croup	1	Insanity	3
Dentition or Teething	5	Liver, diseased	4
Dropsy	11	Measles	5
Dropsy on the brain	13	Mortification	4
		Rheumatism	1

Scrofula	1	Spasms	9
Small-pox	2	Unknown causes	33
Sore Throat and Quinsey	1	Still-born	14

Decrease of Burials, as compared with the preceding week..... 162

JULY 23, 1833.

Abscess	4	Heart, diseased	5
Age and Debility	41	Hernia	1
Apoplexy	9	Hooping-cough	10
Asthma	18	Inflammation	53
Cancer	3	Bowels & Stomach	13
Childbirth	5	Brain	4
Cholera	43	Lungs and Pleura	8
Consumption	90	Influenza	2
Convulsions	41	Insanity	1
Dentition or Teething	6	Liver, diseased	9
Diarrhœa	1	Measles	4
Dropsy	14	Mortification	9
Dropsy on the brain	17	Paralysis	3
Erysipelas	3	Scrofula	1
Fever	12	Smallpox	3
Fever, scarlet	12	Spasms	3
Fever, typhus	4	Thrush	6
Gout	2	Still-born	18
Hæmorrhage	1		

Increase of Burials, as compared with the preceding week..... 92

JULY 30, 1833.

Abscess	2	Heart, diseased	2
Age and Debility	54	Hooping-cough	2
Apoplexy	6	Inflammation	41
Asthma	9	Bowels & Stomach	30
Childbirth	3	Brain	3
Cholera	95	Lungs and Pleura	7
Consumption	71	Insanity	1
Convulsions	41	Measles	10
Croup	1	Miscarriage	1
Dentition or Teething	9	Mortification	4
Dropsy	21	Paralysis	1
Dropsy on the brain	17	Rheumatism	1
Dropsy on the chest	1	Scrofula	1
Dysentery	1	Small pox	3
Epilepsy	1	Spasms	7
Erysipelas	2	Thrush	2
Fever	9	Unknown causes	13
Fever, scarlet	13		
Fever, typhus	6		
Gout	1	Still-born	16

Increase of Burials, as compared with the preceding week..... 29

[*London Medical Gazette*

SEVEN CASES OF STONE IN THE BLADDER SUCCESSFULLY TREATED BY BARON HEURTELOUP.

CASE I. *A large stone in an old subject.*

Mr. B*** had been complaining sometime of symptoms that led Mr. Brodie and myself, who were attending him, to suspect that there was stone in the bladder. He was accordingly sounded about the 14th or 15th of February last, when a stone was immediately discovered, and the alternative of being cut, or submitting to the lithotriptic operation was laid before him. He chose the latter, and an appointment being made, he called at Baron Heurteloup's house, on the 19th February, where I met him. The Baron then introduced a sound, and having ascertained the presence of a stone, without delay set about the operation of breaking it, which was done without any apparent difficulty or suffering to the patient, the operation not lasting three minutes. Mr. B*** then returned in his carriage to his house in Grosvenor-place. During the night a considerable number of fragments of the calculus, which was lithic acid, were passed. Towards morning a large fragment lodged in the urethra, prevented the passage of the urine, and caused an accumulation in the bladder; this was removed, but it was followed by an incomplete paralysis of the bladder, which was, however, of short duration. After this, it required five other operations before the stone (which from the quantity of fragments saved, I should consider, weighed six drachms) was finally crushed. All this time the patient suffered little or nothing, and he is now in good health.

(Signed) H. P. FULLEER, *Surgeon*, 112, Piccadilly.

CASE II. EDMD. M——, ESQ.

Cure in two sittings.

Mr. E. M. a gentleman of nervous temperament and full habit, aged 56, has been subject to urinary calculi for years, from which he experienced great inconvenience at intervals. About two years since he began to suffer great pain and irritation of the bladder on taking exercise, particularly on horseback, followed by hematuria and all the symptoms of stone in the bladder. He was sounded, and a stone the size of a walnut was discovered. He was recommended to submit to the operation of lithotripsy. This he deferred from his dread of the operation, until his life became perfectly miserable from the confinement rendered necessary by the increased irritation of the bladder. He applied to Baron Heurteloup, who visited him at Harborough, and on sounding him, confirmed the opinion of the existence of stone, and advised his removal to London, to be under his constant and immediate observations. On the 15th of April I accompanied him to the Baron's house, where he was placed upon the rectangle bed, and the bladder being injected, the percussor was introduced, and the stone instantly seized and broken to pieces. A large fragment or second stone was treated in the same manner, and the percussor withdrawn; thus completing the operation in a space of little more than two minutes, and literally before the patient was aware it was begun, as the pain he experienced scarcely exceeded that usually produced by the introduction of a catheter. A quantity of fragments escaped with the water ejected, on withdrawing the instrument, and continued to pass for several days. After the operation, the patient walked about as if nothing had happened, and passed a better night than he had done for many months before. It was found necessary to introduce the percussor a second time, to break down some fragments that were too large to pass the urethra, and which were expelled in a few days. The cure was thus rendered complete without confinement, and with perfect safety and very little pain.

From the moment the stone was broken, the patient was able to take his usual exercise without experiencing the slightest inconvenience. Mr. M. has now been in the country two months, and under my daily observation ; and as he has been averse to having the sound again introduced, I have not pressed it, not seeing the most remote reason to suspect the existence of any portion of the stone in the bladder.

HENRY GATTY, *M. R. C. S.*

Harbro', June 25, 1833.

CASE III. *Calculus of fourteen years' existence—cure by lithotripsy.*

Mr. William Finlay, aged 72, of the vicinity of Glasgow, has been afflicted with the complaint of calculus in the bladder for fourteen years. Eleven years ago he came up to London, and was sounded by Sir Astley Cooper, when a stone was distinctly felt. The calculus being too large to be extracted *per vias naturales*, and the patient being exceedingly unwilling at the time to undergo the operation of lithotomy, the idea was abandoned ; he therefore retired into the country. The symptoms, which were then extremely urgent, were, through the treatment recommended by Dr. Prout, greatly relieved, and the patient was at times so entirely free from pain, that he almost considered himself free from the complaint.

Within these two or three years, however, the symptoms have recurred with increased severity ; and latterly, have become so violent, that the patient being in almost constant pain, and not being able to walk even half a mile without the greatest suffering and distress, demanded some immediate means of relief. Early in the month of May the patient came up to London, and placed himself under the care of Baron Heurteloup. The bladder was, at this time, in a high state of irritability, the urine alkalescent, and throwing down a copious mucous deposit ; nor was the patient able to pass one drop of water without the use of the catheter. These symptoms having become in a great measure abated by means at that time adopted, the Baron undertook the evacuation of the stone by lithotripsy, or the process of crushing.

The first application of the instrument was on the 22d of May, since which time five other applications were made, at intervals of longer or shorter duration, according to the symptoms, and the last took place on the 27th of June.

The patient is now quite free from pain, and is able to walk two miles without the slightest inconvenience, and is also able to repeat the same after a few hours' rest, should any thing occur to make him feel inclined. I have to add, that notwithstanding all the difficulties in the case, the applications of the instrument did not ever exceed two or three minutes' duration.

(Signed) DAVID FINLAY, *M. D.*

London, June 30, 1833.

CASE IV. *Cure of stone by lithotripsy, six years after lithotomy.*

Mr. J. S. aged 69, consulted me on the 18th of March last, for symptoms under which he had been labouring for three years, and which had become very severe. He was cut for the stone six years ago by Mr. Key, when a flat lithic-acid calculus, of considerable size, was extracted. The pain he felt on making water was acute, and the irritation of the bladder very great. He could not walk far, without suffering excessively, and riding he found even more distressing. In short, any thing like active exercise was followed by a discharge of urine tinged with blood. The paroxysms of pain were frequently accompanied by pulsations of the heart, and there was often a numbness about the calves of the legs which the patient found very annoying.

Some time before Mr. S. had been to Mr. Key for advice, who, judging that there was another stone in the bladder, advised him to apply to Baron Heurteloup, in order to have it extracted by lithotripsy. I fully concurred with Mr. Key, and advised Mr. S. to go, without loss of time, to the Baron, whose numerous operations I had heard and read of in the *Lancet*. He immediately detected the stone, which he considered flat, and presenting about the same surface as the one which had been removed by lithotomy six years before by Mr. Key, at which operation I was present. The operation was performed on the 22d of March, with the *percuteur*. The stone was immediately seized, and broken by the blows of a hammer. The patient voided a considerable quantity of powder and pieces of stone, directly after the operation, and for several succeeding days. The operation lasted about three minutes, and the patient walked home, as soon as it was over, without difficulty or pain. After three other operations, similar to the first, he returned to Tottenham, where he resides. He is now quite well, and experiences no symptoms whatever indicative of his old complaint. The third operation proved merely an examination, as there was no more stone in the bladder. Some fragments of stone having collected in the passage when the second operation was about to be performed, an obstacle was presented to the introduction of the instrument. The Baron seeing the nature of the obstruction, desisted, and postponed the operation. He employed gentle and proper means to bring the fragments from the urethra, in which he perfectly succeeded. He very prudently was unwilling to use the slightest violence in introducing the instrument, from fear of lacerating the urethra. The patient has now been home for five weeks, and remains quite well.

(Signed) WM. MOON, *Surg.*

Tottenham, Middlesex, May 29, 1833.

CASE V. *Calculus fixed in the bladder—cure by lithotripsy.*

Mr. JOHN LAKE, ætat. 67, a farmer, and an eminent land-surveyor, residing in Kent, forty-five miles from London,

up to the autumn of 1824 possessed uninterrupted health. His own account is as follows :—

About this period, November 1824, I had several paroxysms of excessive pain in the groins and small of my back, with frequent and painful inclinations to make water, without being able to pass more than a spoonful each time. It frequently occasioned nausea and vomitting. These attacks continued four or five hours, and invariably ended with an amazing discharge of urine. Early in the year 1826, I consulted a very eminent Surgeon in London, who sounded me, and pronounced there to be no stone in the bladder. By taking medicine prescribed by him, I was tolerably easy for two or three years, except when riding on horseback, or in a shaking carriage. On such occasions I was annoyed by involuntary passing of urine, coloured like coffee and attended with severe pain. I have been gradually feeling inconvenience, and, generally, considerable pain in making water, which has frequently been discoloured. In the month of July last, I had occasion to take a long journey across bad roads, and worse vehicles. On my return home I was frequently in perfect torture, constantly desiring to pass urine, which was mixed with blood and bloody slime. I could scarcely bear motion of any kind, even that of lifting up my legs in walking, or of rising up and sitting down in my chair, and more especially that of getting into bed. *At this time*, by the skill and ingenuity of the Baron Heurteloup, I am, thank God, relieved from this dreadful affection.

JOHN LAKE.

March 28, 1833.

I was consulted by Mr. Lake on the 14th of February, 1833. His symptoms leading me to believe there was a stone in the bladder, I requested Mr. Key to sound him who did so, and found a stone, which he stated to be fixed in the posterior and right side of the bladder. He thought it a flat calculus and of considerable size; the urethra and prostrate were free from disease. I recommended him, to be examined by Baron Heurteloup, and if the case were by him considered eligible, to undergo the operation performed so frequently and successfully by the Baron, and which I had already witnessed with much satisfaction. I accompanied Mr. Lake to the Baron's, who, upon sounding, confirmed Mr. Key's statement, but hesitated to undertake the case before ascertaining if the stone could be detached from the fixed position it held, without violence or greatly irritating the bladder.

A second examination took place, when the bladder received a large quantity of water by injection and the stone was dislodged. After this he had two severe pseudo-ague attacks. On the 3d of March the Baron performed the first operation before Mr. Key and myself: the stone was seized and broken immediately. The broken portions of it were taken with the greatest promptitude four different times, each of which required very forcible strokes of the hammer to break the portion held by the forceps, but which gave no uneasy sensation whatever to the patient; the duration of this and the subsequent operations was from three to four minutes; fragments of stone to the quantity of a small tea-spoonful passed in course of forty-eight hours. Among the fragments voided was a large piece, evidently the original nucleus of the stone.

Four other operations were required to remove the stone entirely; several fragments were seized in the last operation, but they were found so small, as readily to pass by the urethra.

Two days after the third operation I called upon Mr. Lake, who expressed his delight at being able to move about with entire ease, saying it was the happiest morning of his life; for whereas before he was obliged to sneak behind every pedestrian, now he could outwalk them all.

A couple of days after the last operation, the patient was carefully sounded by Baron Heurteloup, conjointly with Mr. Key and myself, and the entire removal of the stone from the bladder was ascertained. Mr. Lake was impatient to return home, feeling himself able to attend to his occupations, and enjoy the society of his friends. On the 2d of April he left town in good health and spirits.

(Signed) FRED. COBB, *M. D.*
Physician to the London Hospital.

CASE VI. *Cure by lithotripsy four years, after lithotomy. Related by Henry Oldknow, Esq., Surgeon to the Nottingham Hospital.*

Sir,—You will oblige me by inserting the following operation of lithotripsy, performed at the Nottingham Hospital, by Baron Heurteloup. It is a case of unfrequent occurrence, and possesses some points of considerable interest.

John Hancock, aged 56, by trade a stocking-maker, possessing in general a good state of health, although for many years labouring under occasional paroxysms of pain in the back, from the formation and passage of renal calculi (often of so large a size as to lodge in the urethra,) in the year 1828 became afflicted with the symptoms of stone in the bladder. He experienced these symptoms with increased violence (the paroxysms of pain having produced scrotal hernia on each side,) for a period of a year before he would submit to the operation of lithotomy, which he at last did on the 29th of May, 1829. The stone extracted was of the lithic acid variety, in weight five scruples, and in form a flat oval. Except an attack of hernia humeralis, which he experienced first in one testicle and then in the other, he may be said to have done remarkably well, being discharged the hospital in somewhat less than five weeks. He has suffered, however, ever since from a partial paralysis of the bladder, so that he can only retain a small quantity of urine without its passing from him involuntarily.

He still continues to pass renal calculi occasionally, and in June 1832 he suffered greatly from the passage of one of large size down the left ureter, which he distinctly felt to enter the bladder in about seven days, when he became immediately relieved.

This calculus did not pass the urethra, and in about five months from its entrance into the bladder he again experienced the symptoms of stone, and in December last he presented himself to me wishing to undergo a second operation, as his sufferings were intolerable.

Under these circumstances I deferred the operation, and communicated the case to Baron Heurteloup, to whom I was entirely unknown, stating it to be a favourable one for lithotripsy, and that if his engragements would allow him to come to Nottingham to perform the operation, I was sure it would give the professional gentlemen here the greatest pleasure; also saying that I wished to spare the man the risk of a second operation, as, from the nature of this disease, it was very probable that in a few years more he might require its repetition. The Baron immediately wrote in reply, that he would comply with my wishes, and came accordingly to Nottingham in the most ready and liberal manner. He examined the patient, and foretold the nature and probable size of the calculus. On the 12th January he performed the operation before a large assemblage of medical practitioners of this town and neighbourhood, and afterwards gave a demonstration of the various steps of the operation, and the means by which he brought it to its present stage of perfection. The calculus was twice seized and broken by the *percuteur*, and from beginning to end of the operation, did not occcupy more than from four to five minutes' time. The patient expressed surprize on being told it was finished, and moved from the table with much less uneasiness and pain than he had felt in placing himself there. Immediately on reaching his bed he voided, along with the warm water which had been introduced into the bladder prior to the use of the *percuteur*, a considerable portion of the *detritus* and some small fragments of the stone. He had a better night than he had passed for many weeks; indeed he now experienced no pain, except what was produced by the occasional passage along the urethra of some angular portions of stone. The urine voided that night and the following day was slightly tinged with blood, and contained about its usual quantity of ropy tenacious mucus, which for a long time past had been voided in very large quantities. The next day he passed a very large fragment, and by night the urine was nearly freed from the mucous deposit. On the 16th (4th day) the urine was perfectly clear. He complained of a prickling and itching sensation within the anus, and on sitting down, a pain striking to the glans; but he passed no more fragments, and those collected amounted to half a drachm in weight. Up to this time he experienced more or less of these sensations, and on this day he felt a return of his former symptoms, but in a very mitigated degree. I thought it very possible that a fragment of the stone was resting on the back of the bladder, or had entered the prostatic portion of the urethra, which on introduction of the catheter I found to be the case; I pushed it back into the bladder, and entirely relieved him of his pain. On the 20th he complained of a sensation, as if he wanted to part with something from the bladder, which he could not effect, but he had little or no pain. On the 25th the Baron came again to Nottingham, and by a second operation immediately succeeded in seizing and breaking down the remaining fragments, the *detritus* of which the patient passed. Since that time he has been entirely rid of every morbid sensation, and has continued so up to the present moment. His urine remains perfectly free from mucuous deposit, and he has passed neither broken fragments nor renal calculi since the evening of the last operation. The interest excited out of this case arises out of the circumstance of this man having undergone the lateral operation, and subsequently that of lithotripsy. On the comparative merits of these two operations, I will offer no comments of my own, but leave the patient to speak for himself. He said, "although relieved from the more urgent symptoms immediately after the former operation, still I suffered more or less from the smarting of the wound, and the continued flow of urine through it: and the pain I experienced at the time was more than I could well bear. In the operation performed by the Baron, the sensation I experienced was scarcely to be called painful: and except from the passage of the broken pieces of stone, I had no subsequent inconvenience or uneasy sensation, and ever since the second operation, I have been entirely relieved from all my former painful feelings."

It is evident that had the Baron been at Nottingham when the patient experienced the first uneasiness from the presence of the fragments, he would have been entirely cured of the disease on the fourth day, when the second operation would very probably, have been performed.

I am, Sir, your obedient servant,

(*Signed*) HENRY OLDKNOW.

Nottingham, March 5, 1833.

CASE VII. *Cure of stone by lithotripsy, at the Derbyshire General Hospital.*

JAMES WARREN, aged 28, had a stone in the bladder three years. When he had suffered from it about ten years he was admitted into the Birmingham Hospital to undergo the operation of lithotripsy; he remained there upwards of two months, but the surgeon under whose care he was placed, did not succeed in seizing the stone; he consequently left the hospital without being relieved, not choosing to undergo the operation of lithotomy.

On the 8th of April in this year he came into Derbyshire General Hospital under my care, to be examined by Baron Heurteloup, and to be operated upon if a proper case. He had walked fourteen miles on the day in question, but having rested several hours, and the bladder not appearing in an irritable condition, the Baron determined to examine him, and to operate if he found the case such as he thought proper for lithotripsy.

At three o'clock P. M. the patient having been placed on the operation table, the Baron injected water into the bladder through his hollow sound. He next ascertained that a stone nearly an inch in length and almost as thick, was present.

Having withdrawn the sound, he introduced his *percuteur*, with which he seized the stone, and immediately broke it down.

The breaking of the stone and the two fragments, occupied exactly two minutes. The patient did not experience much pain from the operation, nor did he afterwards suffer from any unpleasant symptom. He parted with a considerable quantity of minute fragments during four or five days after the operation, when he was perfectly cured. I made the most careful examination to ascertain whether any fragment remained, but could not discover any. He has remained free from all appearance of stone ever since: it is now June 8, 1833. There were nearly one hundred members of the medical profession present at the operation, all of whom were highly delighted with the skill of the Baron and the success of the operation.

(Signed) Douglas Fox, *one of the Surgeons of the Derbyshire General Hospital.*

Derbyshire, June 2, 1833.

[*Lancet, July* 1833.

A NEW METHOD OF PREPARING MEDICINAL PRUSSIC ACID.

To the Editor of the Medical Gazette.

Sir,—I have to beg your attention to the subjoined formula for the preparation of medicinal prussic acid, by the extemporaneous decomposition of cyanuret of potassium; a plan which, for its simplicity, and perfection, is probably destined to supersede the five very uncertain methods now in use. The medicinal solution made by it (of which the accompanying phial contains a specimen) is obtained always of the same strength; nor is it an insignificant recommendation, its being much less liable to spontaneous decomposition than the sorts made in any other way.

* * * * * * * * * * * *

It only remains for me to say, that my manner of preparing the pure cyanuret of potassium has been communicated to the gentlemen officially engaged in London and in Edinburgh, in compiling the new joint pharmacopœia; with whom the question must for the present rest.

I am, Sir, your obedient servant,

Richard Laming *Surgeon.*

48, Finsbury-Square, Aug. 5, 1833.

Take of cyanuret of potassium, 22 grains; tartaric acid crystals, 50 grains; distilled water, 6 fluid drachms; rectified spirit, 3 fluid drachms; in a phial capable of containing eleven or twelve fluid drachms. Dissolve the tartaric acid in the water and the spirit, previously mixed together, and suffer it to become quite cold; then add the cyanuret of potassium, and immediately close the phial with a sound cork. After occasional agitation during ten minutes, secure the cork and set the phial aside, for the supertartrate of potass to precipitate, when the clear solution may be decanted for use.—*Medical Gazette, August* 1833.

JAUNDICE.

Symptoms.—Yellowness of the skin, eyes, roots of the nails and of the urine. Fæces generally pale. The yellowness first appears at the nails and in the eyes, and in those parts remains longest, because seen better in the white of the half moon of the nails and of the conjunctivæ. In some persons the yellow is of a dark olive colour, bordering upon green; the disease is then termed the *green* jaundice. If a person is naturally swarthy he looks very dark, and is then said to have the *black* jaundice.

Yellowness of sight.—Occasionally it happens that patients see yellow. By some it was supposed to be always the case. Dr. Pemberton saw this occurrence twice, and the jaundice was not very intense. Hoffman also had two patients of the kind. When patients see yellow, it is from the serum of the blood being carried before the pupil through the cornea. If a person labouring under jaundice is blistered, the fluid from the blister is yellow.

Internal symptoms.—Besides these symptoms in jaundice, there are others. Patients complain of langour, frequently of drowsiness, still more frequently of a dead weight at the epigastrium, and tenderness at the hypochondrium, and sometimes of actual pain. There is frequently loss of appetite, nausea, and vomiting; sometimes an itching so great, that patients say they could tear themselves to pieces.

Exciting causes.—The exciting causes are any thing that produces inflammation and congestion of the liver: whatever will produce hepatitis, will produce jaundice. Cold and wet, long continued heat, suppression of a discharge, and every thing that will produce a mere excess of bile, will cause this disease. Malaria seems to have a tendency to produce it in hot climates, and in the hot seasons of cold.

It will be produced by a variety of local causes; any thing causing a pressure upon the parts through which the bile is conveyed. Mere costiveness has given rise to it. Tumours; an enlarged head of the pancreas; tumours of the omentum; diseased liver; and the lodgment of a calculus in the ducts, are also common causes of this disease. Sometimes the ducts are impervious from mal-formation: sometimes spasm produces jaundice. It has arisen from mental causes; such as terror, or long continued grief and anxiety of mind.

Prognosis.—In regard to the prognosis, it must depend upon the cause. Jaundice is generally but a symptom of a disease, and then the prognosis depends upon the nature of that disease. Some die with jaundice; some are little affected by it, looking only yellow. *In green jaundice* recovery is very rare; for, generally, there is some organic disease of the liver, either of the whole or part of that organ. Dr. Baillie says he never saw but two persons recover from green jaundice.

Treatment.—In the treatment of jaundice, if inflammation exist, if it is case of hepatitis: treat it on the principles of inflammation. Mercury answers better than any other purgative. I have exhibited common purgatives in some cases, and mercury, so as to affect the mouth, in others; and patients have recovered more quickly by the latter than by the former mode. In mild cases, where there is only congestion of the liver, the disease will yield to common remedies, and many cases will get well of themselves; but if the disease is more severe, it will be right to employ mercury, and perhaps to bleed in the arm.

When spasmodic pain is the character of the disease, or when there is pain at the pit of the stomach, or on the right side, rather than constant pain, the hot bath and opium are among the best means. If the pulse is strong and quick, bleeding is the best anti-spasmodic. In these spasmodic cases, in addition to the common treatment for hepatitis, you should give a large dose of calomel (ten or twelve grains) and a few doses of opium, perhaps two grains or more. A poultice over the part is also very useful.

This sudden pain with jaundice is no proof of gall stones. You may suspect that there are gall stones, but frequently you have all the symptoms without them; and you have no right to assume their presence unless they have been discharged. When you consider, that from eating something indigestible a person is seized with violent pain at the pit of the stomach and the next day will have an attack of jaundice, you see clearly that this occurrence may be produced without the presence of gall stones: you see that it is obviously caused by something that has irritated the parts.

Chronic Jaundice.—You will find the greater number of cases of jaundice yield to purgatives or to the treatment for hepatitis; but the disease sometimes lasts a long time and becomes chronic. The warm bath, frequent rubbing of the parts, free exercise, and the exhibition of mercury so as to produce a mild affection of the mouth, and purgatives, are here generally successful in removing the disease.

If all the above means fail, you have reason to suspect disease of the liver. If you find induration, or enlargement of the organ, or a degree of dropsy of any kind; if the patient wastes more and more, and the hue becomes green, you have cause to form an unfavourable prognosis; and must use setons, iodine, and the patient's strength must be kept up as well as it can.—*Abstract from Dr. Elliotson's Lectures, in the London Medical Gazette, July* 1833.

ANALYSIS OF ARSENIC.—*a.* ACIDS OF ARSENIC.

Arsenic acid, in the soluble arseniates, when these are presented in the solid state, can be detected by the following experiments: mingled with soda, and heated on charcoal, in the inner flame of the *blowpipe*, they develope the well-known odour of garlic which characterizes the vapour of metallic arsenic. Mingled with charcoal powder and a little boracic acid, and heated in a glass tube closed at one end, they deposit on the cold part of the tube a metallic mirror of arsenic, the presence of the slightest trace of which can be distinctly recognised by the characteristic produced by the heat. In solutions, the arsenic acid of the arseniates can be detected as follows:—*Liquid Sulphuretted Hydrogen*, or a current of *Sulphuretted Hydrogen Gas* produces in acidulated solutions of the arseniates a bright yellow precipitate. The solutions are best acidulated by muriatic acid. The precipitate is not produced immediately, but only after very long reposure, the re-action is hastened by mixing with the solution an excess of liquid sulphuretted hydrogen and boiling the mixture. This precipitate is easily soluble in hydro-sulphuret of ammonia. It is discriminated by this character, from the precipitate produced by liquid sulphuretted hydrogen, in solutions of oxide of cadmium.

Hydro-sulphuret of Ammonia produces no precipitate in solutions of neutral arseniates. But if an acid is added to the mixture,—and the best acid to employ is muriatic acid,—then a bright yellow precipitate is produced, under disengagement of sulphuretted hydrogen gas. This precipitate, however, does not appear immediately, but its production is hastened by the application of heat. A solution of *nitrate of silver* produces in solutions of arseniates a brown precipitate. Were the solutions of arseniates and of the nitrate of silver both neutral, the liquid which remains above the brown precipitate reddens litmus paper. The brown precipitate is easily soluble in free nitric acid and in free ammonia. Solutions of *Chloride of Barium* and *Chloride of Calcium, lime water*, and solutions of *Acetate* and *Nitrate of Lead*, behave towards solutions of arseniates in the same manner as towards solutions of phosphates, excepting that the precipitates of arseniate of barytes and arseniate of lime are much more easily soluble in a solution of sal-ammoniac than the corresponding phosphates of those earths, while, on the contrary, they are more difficultly soluble when the solution contains free ammonia. It must farther be observed, that the arseniate of lead produced by precipitating the solutions of arseniates by acetate or nitrate of lead, behaves before the blowpipe in a manner quite different from the phosphates of lead

heated on charcoal, in the flame of the blowpipe, the arseniate of lead gives out a thick smoke and is reduced to metallic lead.

Of the preceding experiments, those with the blowpipe and sulphuretted hydrogen taken together, give the most decisive result. As to the latter, it must still be remarked, that it is possible to confound the precipitate produced by sulphuretted hydrogen gas in acid solutions of arseniates, with that produced by the same re-agent in acid solutions of peroxide of tin, since both are re-dissolved, on the addition of hydro-sulphuret of ammonia.

b. ARSENIOUS ACID.

The salts of arsenious acid, considered with respect to their behaviour with certain re-agents, have much resemblance with those of arsenic.

When present in the solid state, if mingled with soda, and heated on charcoal, in the inner flame of the blowpipe, they behave precisely like the arseniates and produce the well-known odour of garlic, which characterizes the vapour of the metallic arsenic.

Mingled and heated with charcoal powder and boracic acid, they exhibit the same phenomena as the arseniates.

In solutions which have been acidulated by an acid, and best by muriatic acid, they produce with *Liquid Sulphuretted Hydrogen*, or with a current of *Sulphuretted Hydrogen Gas*, the same appearances as are produced in solutions of the arseniates. Nevertheless, in the present case, the precipitate is of a deeper yellow colour, and is produced much more readily in solutions of the arseniates; it is even easily formed without warming the liquid. The precipitate is easily soluble in hydro-sulphuret of ammonia, and in alkalies.

Hydro-sulphuret of Ammonia produces no precipitate in solutions of the neutral arsenites; but if a little muriatic acid be added to the mixture, a discharge of sulphuretted hydrogen gas takes place, and a yellow precipitate is produced. A solution of *Nitrate of Silver* produces, in solutions of arseniates, a yellow precipitate. By means of this re-agent, therefore, the arseniates can be well distinguished from the arsenites, with which the nitrate of silver produces a brown precipitate. On account of the colour, this yellow precipitate might be confounded with the yellow precipitate which solutions of oxide of silver produce in the solutions of phosphates; more especially as both of these precipitates are soluble in free ammonia. Yet the precipitate produced in solutions of arsenites is distinguished from that formed in solutions of phosphates by being more easily soluble in weak acid, *Solutions of Chloride of Barium, of Chloride of Calcium*, and of *free lime*, produce in solutions of the arsenites, white precipitates, which are pretty easily soluble, in a solution of muriate of ammonia. Solutions of *Acetate* and *Nitrate of Lead* also produce white precipitates.—*Rose's Anal. Chem.*

☞ We have been induced to give the above methods of analyzing arsenic from an expensive work, not likely to be in the hands of many of our readers, by a consideration of the importance of the subject in a country, where, it is to be feared, many more cases of poisoning occur than are ever brought to light. The lamentable one of Mr. Berry, last year must be in the recollection of all. The methods here recommended cannot fail of detecting any traces of this poisonous mineral; and in our first number there appeared a new mode, perhaps not inferior to any of them in its efficacy, and at least equal in point of facility of manipulation. Altogether they must be infallible in the hands of a medical officer possessed of ordinary chemical skill.—EDS. *Ind. Jour. Med. Sc.*

BLEEDING WITH A VENGEANCE.

Thomas Clayer, ætat: 49, musician, admitted under the care of Sir W. Blizard, on the 5th July, states, that while crossing Whitechapel road, he was knocked down by a horse and chaise, the wheel passing over his chest (from the right to the left side.) On examination, three of the ribs on the right side were found to be fractured near their middle, accompanied with extensive emphysema, great pain, and difficulty of breathing; countenance pallid, pulse rather quick and full. *Bled* to sixteen ounces; a dose of *cathartic mixture* to be given directly.

A bandage was applied round the chest by Mr. Barnet, one of the house-dressers, from the application of which he experienced great relief; but Mr. B. being informed by his colleague (Mr. Watkins) that Sir William had "a particular aversion to bandages" in these cases, it was removed, and the sour wash was applied in its stead.*

6. Pain and symptoms increased; bled to twenty ounces. Appears to be relieved from the last bleeding. On Sir W. Blizard going round, he said that the house-dresser had acted very judiciously in bleeding, and likewise in evacuating the bowels; which latter, he observed, "was the chief thing to be observed "in the treatment of fractured ribs, as it "allowed of the easy descent of the dia-"phragm, by which alone in these cases "respiration should be carried on." To be *bled* to twenty ounces, and have the *saline mixture* with *tartarized antimony* three times a day.

7. Feels pain in the side on making a deep inspiration, tongue moist and slightly furred at the back-part; emphysema rather less; pulse weak. Mr. Luke, on, seeing him, ordered twenty *leeches* to be applied to the side; continue the lotion and mixture.

8. Better; complains of weakness. Obtained but little rest last night. Thirty drops of *Batley's solution* to be given

* We are astonished that these gentlemen should be thus induced to remove an application from which so much benefit was derived, merely for the sake of enjoying for one moment the praises of the Knight.—*Rep.*

at bed time. Continue the mixture and wash.

9. Improving, but weak; remedies continued.

10. A little difficulty in breathing; pulse easily compressible; countenance pallid; tongue white; bowels relaxed; slept better since the administration of the opium. Sir William again ordered him to be *bled*, observing that a free use of the *lancet* was necessary in this case. (We act upon Sir William's suggestion, and give the case the fullest benefit the *lancet* can afford it. Few men need this remedy, however, more urgently than the Knight himself, and in this instance he has meted the unfortunate patient's corn out of his own bushel.) The Knight remained during the operation, to see a *sufficient quantity* taken. *Thirty ounces were abstracted!* The saline mixture, with antimony, discontinued.

11. Complains of excessive debility, pulse weak, bowels open. Sir William, on seeing the blood which was abstracted yesterday, remarked, with a peculiar shrug of the shoulders natural to him, poking his nose at the same time into the basin,* "It puts on a buffy appearance." To be *bled* once more to twenty ounces; lotion continued, and a blister to be applied to the sternum.

12. No pulse; pale soft and very weak; tongue blanched; countenance pale. The patient observes that he is perfectly easy, but *dreadfully weak*. (No wonder.) Twenty *leeches* to be applied to the side, and the bowels to be kept open with *house medicine*.

14. Has slept badly during the night, pulse extremely weak, tongue white; continue the cathartic medicine.

16. Much the same; emphysema greatly diminished; bowels confined; repeat the mixture.—*Lancet, July* 20, 1833.

Note from Mr. Watkins.—*Mr Geo. Watkins* will feel obliged by the editor of *The Lancet* inserting his observation on the report of the case entitled "Bleeding with a vengeance," that it were much better if the correspondent of *The Lancet confined himself to truth* in his statement of the case, as far as he (Mr. W.) was concerned. This, it is to be hoped, is plain language enough for any gentleman, should he consider himself such.

London Hospital, July 22, 1833.

*** We willingly afford Mr. Watkins the satisfaction of inserting his letter, but would rather that he had pointed out the error which he considers our reporter has committed.—*Ed. Lancet.*—*Lancet, July* 27, 1833.

PRESERVATION OF SUBSTANCES BY MEANS OF ALLCALIES.

M. Payen has preserved, during many months, polished instruments of iron and steel, by keeping them in solutions of potash or soda, saturated solutions, diluted with one, two, or three times their weight of water. He at first thought that the preserving power depended upon the dissappearance of the air and carbonic acid in the alkaline mixture, but he afterwards concluded that alkalinity acted an essential part in the phenomenon. In fact, a very small quantity of allcali is sufficient: thus $\frac{1}{2000}$ and even $\frac{1}{3000}$ of caustic potash in water, will preserve from oxidation bars of iron, &c. immersed in it. Lime-water diluted with its own weight of water, or, of course, without dilution, answers the same purpose. Alkaline carbonates and borax have the same effects, but they must necessarily be stronger.—*Jameson's Journal, April—July*, 1833.

ON SURGICAL OPERATIONS.

Operations on gouty persons.—There are no individuals whose constitutions so materially modify the effect of surgical operations as those of an arthritic or gouty diathesis, and I shall draw your attention in a particular manner to this subject, as two diseases, each of which requires the most difficult and the nicest operation of surgery for their cure, both occur most commonly in gouty subjects. I allude to stone in the bladder and to cataract.

Indeed, I am persuaded that the existence of gout in the system is by no means an uncommon cause of the failure of operations.

I have remarked that persons of a gouty habit who receive external injuries have the effects of such injuries modified by the arthritic character of their constitution. I have seen many cases of injured joints, in which, after the active inflammatory symptoms were subdued by depletion, a new class of symptoms has succeeded,—symptoms which do not yield to a continuance of such treatment, but which are relieved by the use of those remedies for gout, the action of which is deemed specific when gout affects other parts of the body.

Case.—A lady suffered a severe sprain and laceration of the carpal ligament. The inflammatory symptoms which supervened, yielded in a few days to copious leeching, fomentations, and poultices. Without any evident cause, she was in a short time after seized with pain and tenderness in the injured parts, which neither bleeding nor poultices relieved. She continued for six weeks to try a variety of astringent applications, evaporating lotions, ointments, bandages, and blisters, without relief. At this period I found considerable œdema of the fingers, wrist, and forearm, tenderness and redness of the integuments, and there was a good deal of constitutional disturbance, marked by febrile symptoms, a white tongue, and irregularity of the bowels. In this condition I gave her the colchicum, combined with magnesia, and continued it for a week with the most decided benefit. In ten days the affection of the skin had subsided, and the swelling of the wrist was reduced to the state in which it had been previous to the attack, arising from constitutional irritation. I have seen many similar cases

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* Sir William is obliged to raise his nasal protuberance on these occasions, for he is as blind as a bat.—*Ed. Lancet.*

in all of which a peculiar inflammatory state came on subsequent to the immediate effect of an injury, and which state appeared to arise from the patient having a gouty diathesis, the symptoms yielding to the usual remedies for gout.

Instances too, occur, where a person labouring under gout receives an injury in another part of the body, the gout immediately attacking the part thus injured. Hence may be deduced the practical lesson of bringing the gout from an important or vital organ to some less important part of the body, by producing an artificial irritation in that part. It was the practice of the late ingenious Beer to apply a large blister to the leg, or a mustard poultice to the foot, after performing the operation for cataract on a gouty patient, in order thus to create a greater degree of irritation in an extremity than was caused by the wound in the eye; and in the event of any gout being present in the system, he thus transferred the irritation to the limb and prevented the eye from being attacked by the gouty inflammation.

Case.—An illustrious personage submitted to the removal of an encysted tumour of the scalp, which was particularly troublesome, both from its position and from an occasional fetid discharge from the sac. The tumour was dissected out, but the patient was much irritated by the unexpected severity and duration of the operation. Inflammation of a decidedly arthritic character appeared in the wound. Great apprehensions were now entertained as to the success and safety of this apparently trifling operation, and the attendants were not relieved from anxiety until the patient's knee was severely attacked by the gout, after which the inflammation of the scalp quickly subsided.

Operations on rheumatic person.—The observations now made regarding the peculiar effect of wounds in gouty people, apply also to those persons who happen to be afflicted with *rheumatism*. I have in many cases observed serious effects of injuries in persons who, at the time of receiving the injury, were suffering from rheumatism.

Case.—In order to extract the cataract from the eye of an old lady, I punctured the cornea; and when the knife had entered the anterior chamber, I perceived that its point was beset, so that I withdrew it instantly, and postponed the operation. Notwithstanding the slightness of the cause, she became extremely feverish the same evening, complained of severe pains in the back of the neck and shoulders, and on the following day the eye suffered an attack of rheumatic inflammation. On enquiry it now appeared that she had fatigued and overheated herself in walking about in the morning of the day on which the operation was performed, and afterwards felt a chill.

Operations on persons of nervous habit.—In proportion as the mind of a person is depressed before an operation, and in proportion to the magnitude and severity of that operation, in the same ratio ought you to estimate its danger. Any impression of danger which the patient may have, ought not to influence your conduct, provided you are aware the operation can be undertaken without any risk to life. But if it be an operation of such magnitude, that from experience you know it sometimes to be the cause of death, then if the patient have any strong impression, and is convinced that death will ensue therefrom, I would advise you to proceed with great caution, even though the case appear in every other respect to be a most favourable one.

Case.—I took out a scirrhous tumour some time ago from the mamma of a lady, who, in other respects, appeared to be in perfect health. The operation was determined upon four days previous to its being performed; and not having seen her during the intermediate days, when I came to perform the operation I was amazed to observe not only a most appalling expression in the countenance, but that she had lost a good deal of flesh, and in place of her natural colour a leaden hue. Sir Astley Cooper, as well as myself, had considered it a most favourable case for an operation, the tumour being small and distinctly circumscribed; and the lady having made up her mind to submit to the operation, I saw no sufficient reason for its postponement. It was accordingly performed. Fearing that I might deceive, as to the time I assured her it would occupy, she displayed unusual anxiety, and made her female attendant count time with a watch. It was performed within three minutes, such was the simplicity of the dissection.

Yet instead of expressing satisfaction, as is so usual for a patient to do under such circumstances, her mind seemed to continue in the same state of depression. She was put into bed, appearing very unquiet; her pulse remained feeble, and notwithstanding the administration of a large dose of calomel, and repeated doses of opium, she passed a disturbed night. The wound healed by adhesion, and did not give her the smallest uneasiness; but the pulse never acquired its natural volume; her tongue became greatly furred; a portion of skin and subjacent cellular membrane at some distance from wound, and towards the loins, was attacked by erysipelas, and on the sixth day she expired. The relatives around her remarked, that from the time she made up her mind to submit to the operation, she was never seen to smile, and, to use their own language, she appeared to them from that period until the operation was performed to lose flesh by the hour.

Case.—I operated on a patient who proved to be in deep affliction before the operation of lithotomy, and had I not been satisfied by conversing with him that he had no fear of the result of the operation but merely dreaded the pain, I would not have performed it. The stone happened to

be extracted with great facility, and he quickly recovered.

Case.—An old Soldier applied at the Hospital of Surgery on account of a very diseased tibia which he had for many years, and which made his life miserable. On advising him to have the limb amputated he left the hospital, but returned in a few days to request the performance of the operation. I declined acceding under the belief that he was wanting in courage, and that it might prove fatal, but instead of this I found that he had gone home, not for the purpose of making up his mind to endure the operation, but to prepare himself by a due attention to his religious duties in the event of a fatal result. The operation was accordingly performed; he bore it without a murmur, and from the serenity and tranquillity of his mind his recovery was unusually rapid.

Operations on Infants.—Infants are sometimes destroyed by the loss of even a very small quantity of blood, so that every caution should be taken, in operating on them to limit as much as possible the loss of blood. Hence the danger of applying leeches to young children on parts of the body where the bleeding cannot be readily stopped. On extirpating a nævus some years ago, from the cheek, the infant expired after losing what then appeared to be a very small quantity of blood, and the same accident once happened in an operation for hare-lip; the wound having bled very freely during the operation, and no means being taken to administer stimuli. The child expired in the evening of the day in which the operation was performed.

The only circumstance of importance to be particularly attended to when operating on an infant, is the management of the *nurse*. I am convinced that, in many cases where operations on infants have proved fatal, the death has been caused by changes produced in the nurse's milk, in consequence of the mental agitation which, as you may suppose, is often produced in the mind either of the nurse or the mother, when an operation on her young charge becomes necessary. I have seen several remarkable instances of this kind, and similar cases are recorded by authors. The first case which came under my own notice, took place some years ago in an infant from whom I had removed a small but very hard tumour which was situated behind the ear. No fever or inflammation supervened; and after suppuration had been established, and the wound was granulating in the most healthy manner, the child died suddenly of convulsions. On enquiry, I found that the mother had been thrown into a violent fit of passion late at night, and that she suckled her infant soon afterwards; immediately subsequent to which the fatal convulsion succeeded. In another instance I was sent for in great haste to see an infant in a convulsive fit; and on enquiry found that the nurse who was employed to suckle her infant, had been guilty of some misconduct, for which she had been severely reprimanded. Soon after this mental agitation the infant was suckled by her, and that occurrence was followed by the convulsive attack referred to. The late Sir Richard Croft, who had the immediate care of this child, informed me, that he had frequently known similar cases; and that all the mischief was to be attributed to the pernicious effects which moral excitement produces on the *milk* of the nurse,—an effect with which, in some degree, every one is familiar. Mr. North in his treatise on the "convulsions of infants" makes allusion to this circumstance, and has mentioned examples of it.

Operations in aged persons.—With regard to old people, it is a mistaken opinion, that a person is too old to submit to an operation. The operation for cataract, cancer of the lip, and similar affections, I would much prefer performing at the most advanced period of life; and my reason is, that these operations create in old people much less inflammation; while to secure their success it is essentially requisite that little inflammation should follow, and that the wounds be cured by adhesions.—*Extracts from Wardrop on Operations.—Lancet, July* 1833.

FOSSILS IN GRANITE.

M. de Sechendorf has found in the Hartz, in the midst of a quarry situated near the Causeway which leads to Hartsberg, fragments of grey wacke, containing petrifactions imbedded (empatés) in granite. M. Hartmann, author of the Mineralogical Dictionary, confirms this statement.—*Jameson's Journal, April—July*, 1833.

QUARTERLY REPORT OF THE BENGAL MEDICAL RETIRING FUND.

Calcutta, 13th January, 1834.

Since the last Quarterly Meeting of the subscribers, the Committee of Management have submitted to the Service the Report of the Sub-Committee upon the alterations proposed to be made in the regulations of the Fund, as revised by the Committee of Management.

The following is a general abstract of the votes of Members upon the alterations and addition proposed by the Committee. Forty votes for the alteration of the preamble, four against it; six that admission be left open to subscribers until the pleasure of the Hon'ble the Court of Directors is known; forty-four for the alteration of Regulation 5th, section 1st, four against it; forty-two for the alteration of Regulation 5th, section 3d, none against it; forty for Regulation 7th, section 1st to be added to the plan, two against it; two that invalids who have not served seventeen years in India be allowed the option to continue contributors and receive the pension in turn, or a refund of subscriptions with interest; two that invalids who have not served seventeen years shall receive back

subscriptions; two that invalids who have served seventeen years shall continue subscriptions and receive the pension in turn, by which it appears that the several alterations and additions, as proposed, are carried by a majority of 166 against a minority of 22.

Adverting to receipts and disbursements; by the former the recoveries effected in the Military Pay Department from January up to 31st July 1833, is Sa. Rs. 9,095-10-6; ditto in the Civil Pay Department Sa Rs. 401-15-4, to which add amount paid into the Treasury on the 13th July, by the Secretary of the Fund, Sa. Rs. 3,200, giving a total sum of Sa. Rs. 12,697-9-10. The disbursements are, to cash expended on account of office establishment, stationery, printing, &c. up to the 31st December, 1833, Sicca Rupees 780-1-11, leaving a balance with Government of Sicca Rupees 11,917-7-11. By the statements furnished from the Military and Civil Pay Departments, it appears that of the entire list of subscribers about eighty only have paid contributions to the Fund, several of whom have paid their donations and subscriptions in sonat instead of sicca rupees, some subscriptions only commencing from January and others only from May.

During the past year two gentlemen have been elected temporarily Members of the Committee of Managers, viz., Dr. T. Spens, in the room of Mr. Surgeon H. S. Mercer on his election to the office of Secretary, and Dr. A. R. Jackson in that of Mr. Surgeon J. Hutchinson resigned. Agreeably to the regulations of the Fund, two gentlemen, Messrs. F. Corbyn and M. J. Bramley, the senior and junior in the Management for the past year, go out by rotation, (but are eligible to be re-elected,) whose places, as well as those of the two temporary Managers, are to be filled up by the votes of the subscribers at large.

Several letters have been received since the last Quaterly Meeting, amongst which there is one from Colonel Casement, C. B., Secretary to Government in the Military Department, under date the 15th of November last, stating that the memorial on the subject of the establishment of the Fund, together with the plan, &c. therewith submitted, will be immediately transmitted to the Hon'ble the Court of Directors for their consideration; one from Mr. Superintending Surgeon W. Thomas, and another from Mr. Assistant Surgeon Roger Foley, withdrawing from the Society; and one from J. A. Dorin, Esq. Accountant Military Department, furnishing authority to the Presidency Pay Master to pay the contingent bills of the institution provided the amount does not exceed one hundred sicca rupees, inclusive of forty rupees credit granted for current expenses.

In conclusion the Committee have to observe, that although any great additional number of subscribers is not to be anticipated until the reply to the memorial from the Hon'ble the Court of Directors is received, yet from the list of names already enrolled as subscribers to the Fund, and from the still more numerous list of gentlemen who have concurred in the petition to the Hon'ble Court for the establishment of the same, amounting to 204 signatures, there appears to be sufficient evidence to warrant the conclusion, that on the sanction of the Court being obtained there will be but few members of the service who will not come forward to render it their support. The present list of the subscribers to the Fund is 1 Member of the Medical Board, 6 Superintending Surgeons, 50 Surgeons, and 125 Assistant Surgeons; total 182.

H. S. Mercer, Secretary.

THE INDIA
Journal of Medical Science.

CALCUTTA: FEBRUARY 1, 1834.

It affords us much gratification to be able to inform our readers, that the success which our little Medical periodical has met with since our first number was issued, has exceeded our most sanguine expectations. This is the more satisfactory inasmuch as we were not without apprehensions that certain mechanical defects of the number in question might have a prejudicial effect upon the undertaking. The cover, for instance, was not only of a very different colour from what we had intended, but was cut too small. Accidents of this nature will occur at times in the best managed establishments. It will, however, be the joint endeavour of editors, printers, and all concerned, as much as lies in their power, to prevent such blemishes in future.

From our professional brethren at the Presidency in general we have experienced the most hearty encouragement,—a feeling of the rapid extension of which amongst the members of the profession in the upper provinces, we receive frequent and substantial proofs. While adverting to this circumstance, we avail ourselves of this opportunity, publicly to express our sense of the ready, liberal, and generous manner in which the Medical Board have countenanced our undertaking.

With reference to the original communications in our present number, the first in the order of insertion, and perhaps of importance, is Mr. Raleigh's case of Tumour. The morbid excresence had at-

tained the size nearly of the man's head. A good idea of the shape and volume of the tumour may be formed on glancing at the plate, taken from an accurate and well executed drawing by a medical friend. We need scarcely observe, that illustrations of this kind derive additional value when done by a member of the profession. There is no class of diseases, generally speaking, so trifling in origin, and yet that may be attended with such formidable consequences not merely as respects the comfort but the safety of the patient as that of tumours. Mr. Abernethy, who distinguished himself particularly in this deparment of surgical pathology, has expressed his belief, that tumours form in all parts of the body in the same way. "The jelly, in the coagulable part of the blood, becomes effused either by disease or accidents; vessels shoot into it; it becomes completely organized, and what was before an inorganic concrete, becomes a part of the living system." In Mr. Raleigh's case the operation became urgently requisite, not only from the enormous size of the tumour, but from the malignant character which it began to exhibit. The operation was ably performed, and had the happiest result, for in six weeks the edges of the wound were healed. The case, we presume, may be considered as one of adipose Sarcoma.

The same gentleman's case of transposition of the abdomical viscera furnished one of those instances where nature appears to indulge in a freak, as if to prove to short-sighted man that she can do so with impunity, were it only to furnish him with a seven days' wonder.

Amongst the various features of advancement in the history of native mind, we know of none more pleasing than the interest which natives of rank and respectability have of late years evinced in the progress of European literature and science. Men of active minds and creditable acquirements like Baboo Radakant Deb, must always feel that there is a field beyond the sphere of mere routine, where the faculties may be exercised with advantage and edification, and where more solid distinction may be acquired than from factitious and conventional marks of dignity. The Baboo treats the subject of vaccination with candour and good sense, and does not hesitate to point out the weak points of his countrymen's opposition to it, although as leaning towards what he may perhaps consider the good old custom of variolous inoculation, is observable in his remarks. Believing, as we do, that the discovery of Jenner has done more good for the nations than almost any other within the last century, we would fain recommend its extension amongst the natives of this country as often as we have the opportunity. It is true enough that variolous inoculation is a very effective preventive to smallpox infection, but then it incurs a risk and keeps alive a loathsome disease. Vaccination, on the other hand, if carefully looked after, is equally effective as a preventive, and includes no risk.

Among other objections entertained by the natives of India against vaccination, it appears that they are averse to insert virus from the body of a beast into that of a human being—'and *therefore* they particularly abominate vaccine virus to the present day.' This prejudice is in contradiction to the shasters, which enjoin 'that every substance or matter derived from the cow is to be esteemed pure and holy to that degree, that even its animal putrescences are not to be abhorred.' We all know the use that the natives make of the excretions of the cow, and yet with strange inconsistency they object to the transference of a small particle of lymph upon the point of a lancet into the human arm, upon the plea equally irrational and inconclusive, and which by a parity of reasoning would include the milk of the cow from dietetics, that it is abominable te admit the product of a beast into the hnman system! We hope that Baboo Radakant Deb and other native gentlemen of rank and influence will do all in their power to neutralize the effect of such absurd prejudices, which have so injurious a bearing upon the utility of a most beneficent prophylactic agent.

One passage of the Baboo's letter struck us much, with reference to the necessity it indicates, of extending the blessing of education to the females of India, before we can expect any very marked or general improvement in the moral and social scale. The natives, it seems, (and it is under the circumstances natural that they should) disregard the advice and publications of foreigners whom their female know nothing of—'these females presiding over many domestic concerns, being

always averse to any *new* practice not within the limits of their own understanding.' Of this fact we have had repeated experience, and it frequently exhibits itself in a series of frivolous objections (always emanating from the *gyneceum*) to the simplest thing prescribed by an European practitioner. In a case where the tepid bath was urgently required two or three times a day, our directions to that effect, owing to some superstitious repugnance, respecting lucky and unlucky days, on the part of what the worthy laird of Monbarns so emphatically and comprehensively calls the womankind, were evaded, until a threat was held out of non-attendance unless the orders given were more strictly attended to.

We accidentally omitted in our last to call the attention of our readers to a paper entitled THE PHYSICIAN. It forms part of a plan for the consideration and discussion of professional and scientific topics in untechnical language; and judging from the manner in which the first paper of the series has been received, we doubt not that this portion of the Journal will become popular, more especially with persons not belonging to the faculty. It has ever appeared to us a matter of unfeigned surprize, that medicine, (using the word in its most comprehensive sense,) should not to some extent be studied as a branch of general education. That the period is not far distant when it will form such, we cannot for a moment doubt, seeing how much *things* more than words and sounds have of late years attracted the earnest attention of mankind. There are very few young men who do not know something of the anatomy of a horse, and who are not proficients in the arcana of equestrian and canine materia medica and surgery. Yet, strange to say, these persons, who are perfectly at home when a horse or dog is to be prescribed for upon the nonce, would be sadly perplexed by the exigencies of human ailment, and would be quite bewildered if a companion of the hunt or race were to meet with á violent fall from horseback ending in instantaneous insensibility. They would perhaps, in the agitation of the moment, and deeming it ne-cessary to do *something*, (not clearly discerning what *ought* to be done,) take out a lancet and proceed at once to bleed, without the most distant idea of the diagnosis between concussion and compression of the brain, although life itself might perhaps be the certain forfeit of ignorance on that point, while the tyro held the lancet ready to bleed at all events!

Much, in a remedial point of view, may depend upon the timely application of very simple means. How many children have been lost to their fond and distracted parents for want of a seasonable lancing of the gums, during the irritation of dentition, that Babelmandeb, or gate of affliction, through which all born of woman have to pass, or have passed! How very few know *how* and *when* to perform this simple, but, as it may happen for the little patient, most important operation! How few know how to mix or administer a lavement, or common injection, to a child; and yet such, timely given, might save its life. How few can prepare a mustard poultice for an adult, although, under Providence, relief and cure may depend upon its speedy preparation and application! How few can bleed, how few can pass a catheter! And as to taking up an artery, or distinguishing between it and a vein, we fear it is out of the question. In a word, the ignorance prevalent upon matters of the nearest importance to the general weal, and which may affect us all individually at some time or other, is exceedingly to be regretted. It is the object of the Editors of this work, as much as their humble means and powers may admit of, to obviate the disadvantageous effects of this neglect of medical science on the part of the general reader and man of the world. No. 1 of *The Physician* has been spoken of to the Editors in highly gratifying terms; and the subject of it was such, that it could scarcely fail to prove acceptable, if treated with tolerable ability; for what parent's heart has not some time or other palpitated with the most painful apprehensions on learning that his child laboured under *infantile remittent fever;* and who would not be grateful to him who could point out a safe path of treatment for his guidance, when far removed from professional aid? The subject of No. 2 of *The Physician* is no less interesting, being that Protean disease to which all, from the cradle to the verge of threescore and ten, are less or more subject, the hydra that in itself com-

prehends the symptoms of almost all other complaints—in a word, INDIGESTION. We invite such of our professional brothers as approve of this part of our scheme, to favor us, when they may be so disposed, with contributions to *The Physician*. The plan of this paper is such, that any one capable of doing the subject he may undertake common justice, can contribute. We intend ere long to extend the scheme under the general head of THE SURGEON.

Mr. Stuart's case of hydrophobia is extremely interesting, more especially as showing that the disease may be communicated to man by an animal apparently in perfect health. Dr. Mason Good objects to the term of hydrophobia or water-dread, and with good reason ; since this is by no means a pathognomonic symptom, and persons have died of the effects of the bites of animals, in whom there was not a trace of water-dread. Accordingly he restores the ancient and classic name of *Lyssa*, by which the disease was known even so far back as the time of Homer. Celsus touches very briefly upon it, but truly describes it as 'miserimum genus morbi: in quo simul æger et siti et aquæ metu cruciatur, quo oppressis in angusto spes est.' Until very recently it was concluded that the human species could not return the disease (call it lyssa, hydrophobia, or rabies, or what you will) to the quadruped. An experiment of M. Magendie, however, set that question at rest in 1813, when a portion of saliva of a rabid man was inserted into the skin of two dogs that were at hand both in good health, one of which became rabid in 25 days afterwards, and bit two others, one of which died of the disease. It has been doubted whether the bite of a healthy dog could produce lyssa. Without referring to other authorities, we may be allowed to point at once to the case before us, as a fearful proof of the affirmative. The usual morbid phenomena were in this case well marked,—such as great trepidation, horror of liquids, mental excitement, closed by a miserable death at the end of two or three days, and all following upon the bite of a dog, but in this case a very young one. On mentioning the case cursorily to one or two medical friends, they have expressed themselves with considerable doubt as to the case being one of hydrophobia. The query then is, what disease was it ? Tetanus. The next query is—whether does it agree in the history of its symptoms more with what is recorded under the head of one disease or the other ? The history of the case would seem to mark it distinctly enough as one of lyssa or hydrophobia. In tetanus, when the disease has arisen in consequence of a puncture or any other internal injury, the symptoms show themselves generally about the eighth day. In tetanus there is rigid spasm with locking of the jaws, or the body is agonizingly bent forward, backward or sideways ; there is also, in general, a painful affection of the abdominal muscles ;—there is no delirium, or occasional paroxysm of insanity, no attempt to assault or bite the bye-standers, no dread of dogs, and the bowels are difficultly moved. In hydrophobia again, commonly the mind does not wander, but the patient is sometimes furious and ungovernable. There is a perturbation or horror not commonly observable in tetanus ; there is no rigid tonic or continued spasm ; but above all, the whole train of symptoms is referrible to the bite of an infuriated or rabid dog or other animal. The bowels are not (so far as our experience goes) very difficult to be moved, provided medicines can be administered.

The subject of Mr. Stuart's case was a syce of his own, who consulted him for the first time on the 10th instant. On enquiry the man informed his master that he had been bitten five or six weeks before by a pup. The animal is still alive and well. The mental excitement throughout appears to have been very great, and the man expired, after dreadful tortures, at night on the 12th instant. The account of the poor man's sufferings agrees generally with the description of a case of the same terrible disease by Drs. Adam and Browne in the 2d vol. of the Transactions of the Calcutta Medical and Physical Society, where the patient (an European) is described as being endowed with insuperable muscular strength, and as being hurried along by an impulse that nothing could controul. 'The frightful cries he now uttered, coupled with an occasional remark which escaped him, that it was "a *dreadful death*," served to fill all present with mixed sensations of pity and horror. After running about the room he would sud-

denly fall down, and roll himself on the floor, and in an instant start up again.' It is a very common thing for natives who have been bit by mad dogs, or dogs suspected to be so, to fancy that they have dogs within them, and so forth. Of this we witnessed a strong instance in a respectable Mussulman servant of our own, in whom the force of imagination was so great on this head, that we had serious apprehensions for his life. Dr. Mellis mentions the same thing in a paper published in the second volume of the Calcutta Medical and Physical Transactions, where also the mental delirium of Mr. Stuart's patient respecting pups appearing in his urine, is alluded to as not an uncommon thing. 'In many instances, especially among natives, an affection little short of the real disease is brought on from sheer fright, as well as native prejudices; for I (*Dr. Mellis*) have met with several cases when, after being bitten by dogs not mad, they have confidently believed they had pups within them, and have as confidently asserted that they have seen them in the urine they had passed.'

Dr. Jackson has favored us with the results of some interesting experiments made by him with variolous matter upon the cow; as also of the success of vaccine lymph procured from the cow on the human subject.

During the last month Catarrh has been so prevalent in Calcutta that it might be termed epidemic. It attacked equally children and adults, and in some cases the affection of the head and larynx was very severe. We have heard even of the disease merging in pneumonia in two or three instances. Severe bowel complaints with tormina and tenesmus, but not extending to complete dysentery, have also been observed.

When the Scottish sailor was interrogated by his curious mother respecting the wonders he had witnessed in the East, mentioned his having seen flying fish; the worthy old soul told him plumply that it was a figment; when, however, he informed her that a wheel of one of Pharaoh's chariots was fished up on the fluke of the ship's anchor in the Red Sea, she at once assented to *that* fact with much complacency. In a word the *simple truth* is sometimes too simple, and requires to be peppered and spiced before it can be swallowed by epicurean enquirers. These remarks have been suggested by the observations made here and at home on the experiments of Dr. Blundell with the 'mineral magnet.' The facts are plainly stated. The experiments are easy. But no; that is not sufficient. There is not enough of flourish and mystification about the thing. 'Abana and Pharphar' are better than the waters of Israel. The nauseous unchemical mixtures of designing empirics are superior to the simplest remedies of the scientific, that require but faith enough to make trial of them. People despise a simple thing on account of its very simplicity. The rivers of Damascus, on the other hand, or the quackeries of smooth-spoken and crafty quacks, must at least be paid for pretty smartly, and moreover have a relishing smack of secrecy and a certain fi-fa-fum of mystery about them, that enhance their value in the estimation of the million.

Dr. Blundell, however, with that right-mindedness for which he is distinguished, is about to publish to the world the result of his experiments, and the reasons which induced him to try them. His work is now in the press, and he has facts to detail, which are confirmed by Dr. Elliotson and a numerous body of intelligent men, who were present when most of the cures were effected. Upon this, however, we do not lay much stress, aware that impostures of no ordinary description have been equally well attested; but we believe the name of Dr. Blundell is a security against deceit on his part; and we are sure Dr. Elliotson is not a man readily to be deceived. As to the matter itself we know nothing; but we intend to try it when we have an opportunity; and in the mean time we shall be obliged if some of our professional readers will avail themselves of so simple a remedy, and inform us of the result.

We have copied seven very interesting cases of lithotrity, or lithotripsy, whichever name the operation may finally settle into, by the Baron Heurteloup, communicated by Mr. D. O. Edwards in the *Lancet* of July last, and signed by the attending medical men. This operation by the PERCUSSOR has, so far as we have learned,

never been performed in India. Indeed, the records of the Medical and Physical Society will shew, that lithotomy is almost the only means relied on for the cure of one of the most dreadful diseases of the human frame—stone in the bladder. We wish to introduce, then, to the notice of our professional brethren, an operation almost free from pain and danger, instead of the horrible and highly dangerous one of cutting, that has been exclusively followed from the days of Celsus to our own. Whatever may be the imperative merits of the different methods of breaking down a stone in the bladder, it is not our province at present to decide upon ; but we hesitate not to say, that the inventors, and cultivators of this, one of the most directly beneficial of all modern scientific discoveries, deserve, as they will surely obtain, the lasting gratitude of mankind.

The principal points of professional interest mentioned in the English Medical periodicals for July and August last, are the rejection of the New Apothecaries' Act, at which all parties, nearly, appear to rejoice ; the attempt of the London University to gain the privilege of conferring degrees ; and a Parliamentary enquiry into the affairs of the College of Physicians, with a petition of a number of the licentiates against the abuses of that institution.

With regard to the school in Gower Street, we are favourable to its success ; but we are not advocates for its exclusive pretensions. We know nothing in its circumstances ; unless, perhaps, the eminent character of one or two of its professors constitute such a claim; to entitle it to be even considered as a distinguished medical school. Nothing, certainly, so far as we are aware, exists in the institution to warrant an assumption of superiority over that of any great hospital establishment in London, or even of one or two private establishments. Has the London University a greater number of patients than the Hospitals of Bartholomew, Guy, or St. Thomas? Has it better museums than they have ; better teachers of anatomy, surgery, and medicine in all its branches ; better means, in short, of making the accomplished Physician ? (We use the term in its extended sense as applying to professors in all branches of the healing art.) We should say NO : but it calls itself an *University*, and its teachers *Professors!*

We remember some eight or nine years ago the outcry made, and with justice, against the new bye-laws of the College of Surgeons ; by which students were to be compelled to receive instruction from some hospital Surgeon, (the institution to which he belonged containing at least one hundred beds,) for a certain number of courses, ere their certificates could be received at the College prior to their examination. By this atrocious bye-law,—intended solely to put money into the pockets of the people who made it, (the hospital Surgeons themselves,)—schools, such as those of Grainger, Dermott, Carpue, and, above all, Brookes, would have ceased to exist. But the public mind was against it, and the bye-law fell into that disuse and contempt which must ever attend the schemes of selfish corporate bodies, formed '*at the expense of the many for the good of the few.*' But, if we recollect aright, none were so violent against this act of the College of Surgeons as the very party styling themselves liberal, who now contend for this exclusive privilege for the London University,—this pet job of their own. But, we trust, it rests entirely with the governors of the institution, and that the professors, some of whom we highly esteem, are not parties to so selfish a manœuvre.

The affairs of the College of Physicians seem at length to have reached their crisis. The Licentiates, goaded beyond endurance by the pressure of this institution, which like Sinbad's old man of the sea, seems inclined to ride upon their shoulders for ever, have petitioned Parliament for "such inquiry into the state of the medical profession in this country, and the College of Physicians in particular, as will lead to the framing of laws by which the evils complained of may be removed." This petition,* is signed by forty-nine physicians ; among whose names we recognize some of the first of the day ; such as *Gilbert Blane, H. Clutterbuck, G. Birkbeck, Neil Arnott, James Johnson,* and others.

The quarrel between the College and the Licentiates is one of long standing, and has been embittered of late years by personal rancour. Like the respectable old gentleman aforesaid, the College be-

* Vide Selections.

came drunk with success; and thought fitting to enter the lists with Dr. Harrison, a man of undaunted firmness, who fairly brought the matter before the public, on the broad basis of there being no legal power to compel him, nor any other physician, to submit to its examination prior to practising his profession in the metropolis; even although he should have gained his medical lore at the despised academies beyond the four seas, or to the north of the Tweed, instead of at the two orthodox English universities. The College appealed to the courts of law—but law afforded no redress; private persecution was resorted to, and had the usual effect persecution ever has upon every man of spirit, of exasperating instead of intimidating; and when some of the Fellows, in pursuance of a course, that it is to be regretted was ever entered upon, refused to meet Dr. Harrison in consultation, he retaliated upon them, most amply, by refusing to meet them in turn.

Had the College of Physicians fulfilled its high destiny; had it fostered talent wheresoever it was found; had it prosecuted to the utmost those vipers who look upon the public as their prey, whose trade is nostrums, and whose practice is death, it would not be deserted now. More than this, it would have been respected and upheld; and long would it have flourished, for none would have dared, none would have wished, to attack. But no; like all societies, which, at first planned by the upright and single-minded, fall afterwards into the hands of inferior men, it speedily became a road to exclusive privilege, a tool for the selfish; and while the Eadys, the Solomons, the St. John Longs, have pursued their deadly career with impunity, the College has ridden triumphantly, in a parallel one of persecution, against the physicians of such universities as Edinburgh and Leyden,—against such men as Armstrong, of whom it is said that it almost broke his heart.

We desire not, however, the ruin of this, or of any other ancient medical institution. Founded upon good principles, the tares only should be weeded away, and the regulations adapted to the change of the times. It matters not to the public, where the physician gains his knowledge, so that knowledge he has. All should be examined who present themselves, on paying a small fee, just sufficient to secure the institution from the trouble which would, otherwise perhaps, be caused by presumptuous individuals, whose evil genius might tempt them to risk an examination without a single reasonable chance of success. Let these judicious changes be made, and we augur much good still from the College of Physicians, much security to the public, and the certainty of its producing again as it already has produced, some of the best and greatest practitioners of the medical art.

The trial of Mr. Betts, on the 20th and 21st December last, upon a charge of murder excited a great deal of interest, not merely on account of obvious circumstances, but of its including certain points of considerable importance in a medico-legal point of view. The evidence was of a twofold character,—that which preceded death, and that which followed it. Respecting the former, we are not called upon to offer any remarks. Suffice it, that there was great discrepancy, and even contrariety of evidence, upon leading circumstances. It was shown that the deceased, Meer Khan, or Meah Khan, had received a beating at the hands of the accused; but it was not made out, nor, properly speaking, even attempted to be proved, that the man came by his death in consequence of the beating. There was no effusion of blood—there were no marks of violence of any kind upon the body referred to, before or after death, unless, indeed, we except a burning of the skin of the legs deponed to, as having been produced by burnt paper or straw, but the evidence respecting which was any thing but coherent and conclusive. Be that as it may, however; there was not a trace of evidence to prove that this alleged burning was the cause of the man's death. Two of the men who carried the body to be buried at midnight testified to marks of burning, but contradicted each other respecting the appearance of the legs; one (Haroo) swearing that they were covered with plaister, or laid over with plaintain leaves; and another, (Anund) that the wounds and burns were not covered with any thing. The latter when asked how he knew that the legs were burnt, (a question to be asked of a sharp-eyed witness who sees so distinctly in the darkness of midnight, by flashes of lightning,) replied that they were *white*. This

whitnesss he again accounted for by saying that *butter* had been applied over the part.

The question for the Jury was, did Meah Khan die of the beating? This the evidence, conflicting and *shifting as it was, failed utterly to prove as respected the train of appearances before death. The next question was, as the evidence of those who saw Meah Khan alive is not conclusive as to the cause of death—did the inspection of the remains throw any light on the subject? The value of the medical portion of post mortem testimony, depended upon the possibility of proving, whether or not a quantity of human bones, produced, belonged to the deceased. How were the bones found? Three months after the burial, Haroo senior, (one of the funeral party,) after some search, found out the grave, or the supposed grave, on the verge of the bank of the river Damoodah. The body, it seems, had been buried pretty deep in the sand, above the common water-mark, at the distance of sixty or eighty yards from the proper bed of the river, at a place which the waters had never reached, or could only reach on extraordinary occasions. The bones were uncovered, but not removed until five days afterwards. It was not, as well as we can recollect, clearly made out whether other bodies ever were interred in that spot. Indeed, we do not think that the grave was at all properly identified as Meah Khan's. The evidence of the medical gentleman, Mr. Cheek, completely proves at any rate that the bones found were *not* those of Meah Khan. This gentleman, who is Surgeon to the civil station of Bancoorah, (in which zilla the alleged crime was committed) stated that twelve of the vertebræ, six of the ribs, and the sacrum, were wanting. That the whole of the bones found were clean, and free from periosteum, ligaments, and cartilage; that one rib was broken and had apparently an osseous callus formed upon, and around the fractured ends. Mr. Cheek's evidence throughout, was clear, consistent, and convincing. He gave it as his opinion, that the fracture must have occurred several days, at least seven or eight, before death;—never heard of an instance of bones being cleared of soft parts and ligaments by natural decomposition in three months;—would not expect the cartilages and ligaments to be separated within the year;—considered it extremely improbable that these were the bones of Meah Khan, or of a person who died in June last.

From the evidence several considerations suggest themselves. The indentity of all the bones as those of one individual; the age of the individual; the nature of the bony excrescence or callus found on the broken rib; the time necessary for the formation of callus at all; the period that must elapse before the total spontaneous decay of the soft parts, consisting of muscles, tendons, cartilages, or gristle, viscera, and ligaments, or elastic strong membranes and bands connecting and binding bones together; and, lastly, the probability of the separation of the sacrum from the ilium or hip bone in a man of fifty or sixty. The question of the identity of all the bones as those of one individual, was not even gone into. Mr. Cheek gave it as his opinion, that they were the bones of a male subject. He could not be certain, he said, as the os sacrum or that bone which closes the pelvic circle behind, and forms the basis of the spinal column, was wanting. No opinion was asked or given as to the supposed age of the person to whom the bones belonged. Only one bone was produced in Court; viz. the broken rib. The nature of the bony growth or callus round the fractured ends of this rib had not been chemically ascertained. The probability is that it was genuine callus. On the subject of the formation of callus, we know no work that gives a clearer account than the excellent one of that very able and scientific Surgeon, Mr. J. Amesbury, on the nature and treatment of fractures. 'We know,' he observes, 'that the bone is a well organized part of the body, possessing nerves, arteries, veins, and absorbents. We know that it is originally a secretion derived from the blood, and that it is deposited by arteries, or by a peculiar apparatus formed of arteries; and that callus is nothing more than a regeneration of bone, made and deposited by arteries, or an apparatus formed of arteries, in the same way as that which forms the original bone.' There is found around the ends of fractured bones what Mr. Amesbury calls

* Some of the witnesses, it would appear, testified one thing before the magistrate, and another before the Supreme Court.

the provisional tumour forming a gland-like mass for the purpose of generating and pouring out callus. We would fain go further into the subject, but are deterred by want of space. It is not till the sixth day that ossification may be said to commence. The general mass of the provisional tumour is cartilaginous with specks of bony matter interspersed. From the 8th to the 12th day ossification still further advances, but as yet the callus is far from being a homogenious bony concretion or union. It is clearly impossible then, if the rib belonged to Meah Khan, that it could have been broken in the course of the beating; the fracture, supposing it to be his, must have taken place ten days or a fortnight previous to that beating. The period that must elapse before the total spontaneous decay of a human body in a grave, so that nothing shall remain but the bare bones, must take up years, even in this climate. Mr. Ravenscroft's case, (a most lamentable one,) was alluded to. That unfortunate person was murdered some nine years ago in Oude; and doubts having been *charitably* circulated of the truth of that circumstance. Government ordered the grave to be opened, that the matter might be placed beyond dispute. The body accordingly was examined three or four months after the burial, and was recognized to be that of Mr. Ravenscroft. It presented, of course, a revolting spectacle, but the soft parts were still there, and this we know from having conversed, shortly after the event, with one of the members of the committee ordered upon the melancholy inquisition. More on the subject of the spontaneous decomposition of the soft parts anon. We now come to the last proposed point of enquiry—the separation of the sacrum from the other pelvic bones. The connexion between the bones mentioned is perhaps the strongest in the human body. The ilia or hip bones on each side of the sacrum or rump bone are articulated or joined to the sacrum by what is technically called the sacro iliac symphisis. This joining is formed by a layer of dense cartilage being placed between the sacrum and the ilium, forming a junction of very great strength; which is still further knit together by a certain set of powerful ligaments. So strong, indeed, is the union between the sacrum and hip bones, that they cannot be separated even in the young subject without immense violence; whilst in the old,—say a man of 50 or 60,—it generally becomes more or less anchylosed or stiffened by bony union. From all that has been stated then, it is as clear as any logical inference can be, that the bones in question were not, and could not, be those of a man who had died three months previously, and, consequently, not the bones of Meah Khan. We cannot now more appropriately conclude these discursive observations, than by the following admirable extract from the Cyclopœdia of Practical Medicine, under the head *Persons found dead.*

"It is often, as has been already mentioned, of the highest importance to the survivors, that an approximation to the time that has elapsed since death should be arrived at. For assistance in such an investigation, the medical jurist will turn in vain to the systematic works on legal medicine, it being only within the last few years that any accurate information on the subject was possessed by the profession. We are indebted to M. Devergie for the first essay on the interesting subject, one concerning which the most vague notions were entertained previously to the publication of the memoir alluded to, in the year 1829. The observations of M. Devergie are entitled to much consideration, from the unrivalled opportunity afforded for their information. He was authorized to carry on his investigations at the establishment called "La Morgue" in Paris, a building on the banks of the Seine, to which are transported all bodies found dead in the city and its environs, and where they are exposed during three days for the purpose of recognition by their friends. The number thus exhibited exceed three hundred annually, and includes all manner of violent deaths. In case of the sudden disappearance of any individual, his friends repair to the Morgue, and leave with the porter an accurate description of his person, his clothes, and the period at which he was last seen; and when a body is brought in, it is carefully examined, and if it corresponds with any of the descriptions that have been left, notice to that effect is sent to the persons interested, who come and claim it. The number of persons recognised is very considerable; in the first six months of the year 1829, out of 148 bodies 116 were claimed; of this number 62 were drowned, of whom 45 were recognised. Being thus furnished with positive information as to the time of immersion, and that of finding the body, Devergie was enabled to prosecute his inquiries with great accuracy, He found that in general no change takes place on the exterior before the fourth or fifth day, and the cadaverous rigidity continues two, three, or even four days after the immersion. This is probably owing to the

coldness of the medium in which the body is placed. About the fourth or fifth day the skin on the palms of the hands begins to whiten, and this change of colour takes place particularly on the ball of the thumb and the fleshy eminence on the inner side of the palm over the metacarpal bone of the little finger, together with the lateral surfaces of the fingers. The back of the hand does not partake of this colouring, and the rest of the body presents nothing particular. On the sixth or eighth day, the skin at the back of the hand begins to whiten; at the same time that the sole of the foot has acquired a similar tinge; the skin of the face is softened, and of a more faded white than the rest of the body. On the fifteenth day, the face is slightly swollen and red; a greenish spot begins to form on the skin over the middle of the sternum; the hands and feet, with the exception of the dorsum of the latter, are quite white, and the skin of the palm of the hands is wrinkled. The subcutaneous cellular tissue of the thorax is reddish, and the cortical substance of the brain takes a green colour on the upper part of that organ. At one month, the face is reddish brown, the eyelids and lips are green and swollen, the neck is slightly green, and a spot of about six inches in diameter, brown in colour, and with a green areola, occupies the superior and middle part of the sternum. The scrotum and penis are enormously distended by gas, the latter being sometimes in a state of erection from that cause. The skin of hands and feet is quite white and very much wrinkled, presenting the appearance of having been long enveloped in a poultice. The hair and nails are still very adherent. The lungs are emphysematous, and fill the cavity of the chest overlapping the heart, a condition different from that which these organs present at a more advanced period. At a month and a half, besides the appearances first mentioned, the neck and thorax are found very green, and the cuticle begins to detach itself round the base of the hand where it joins the wrist. At two months, the body is covered with slime, which penetrates through the clothes. The face is enormously swelled and of a brown colour, the lips are tumified and separated so as to expose the teeth. The skin on the middle of the abdomen, as well as that of the arms, forearms, thighs and legs, is still in a natural state. This is a most remarkable fact, and establishes a striking difference between the progress of putrefaction in water, and when the body is exposed to the atmosphere; in the latter case the abdomen being the first part to manifest any change. At this period the skin has become detached from the hands and feet, and having the nails attached to it, forms as it were a glove. The skin and nails of the feet are longer in separating than those of the hand. The heir begins to fall off, and is easily removed by pulling. The veins are almost completely empty of blood, and commonly distended with gas. The inner surface of the arteries is red, and that of the trachea between the cartilages presents the same colour. If at the moment of death the right cavities of the heart were gorged with blood, the internal surface of the ventricle is of a jet black colour; and in contrary cases an analogous appearance is presented on the opposite side. Devergie considers this a most important diagnostic mark of death by asphyxia. At two months and a half, the green colour of the skin extends to the arms, forearms and legs; the nails are completely detached from the hands and feet; some adipocire is formed on the cheeks, chin and breasts, armpits, and anterior part of the thighs; the abdomen is greatly swollen by putrefaction within: the muscles at this period preserve their natural colour, and do not appear altered in the texture. At three months and a half, there is observed destruction of the scalp, eye-lids, and nose, to such an extent as to make it difficult to tell the age of the individual. The skin of the breast is generally of a greenish brown; the centre of the abdomen is of an opaline colour, and scattered with small ulcerations caused by the water. Larger corrosions are found in different parts of the body. The hands and feet are completely naked of skin. The lungs no longer fill the thorax, but leave between them and pleura costalis, a space filled with reddish serum. At four months and a half, occurs complete destruction of the face and scalp, leaving the skull bare; the remains of the face, the neck, and anterior part of the thighs is entirely converted into adipocire, and small eminences, indicating the commencement of calareous incrustation, are observed on the prominent parts. The brain presents traces of adipocire in its anterior part. Devergie has not classified the changes that take place at more advanced periods. The paper from which we have extracted the foregoing account has been severely criticised by Orfila,* who endeavours to overturn the facts and doctrine contained in it. But we think he has been satisfactorily and triumphantly replied to by Devergie,† who adduces, as the best proof of the validity of his conclusions, four cases, in which the periods of immersion, varying fifteen days to one, two, and eight months, were ascertained with the help of his table.

* Traité des Exhumations Juridiques, t. II. p. 83.

† Annales d'Hygiene pub, et de Med. Leg. t. v. p. 429.

ERRATA IN No. I.

CORBYN ON FEVER.

3d page, 2d column, 37th line, 2d paragraph, for *since* read *hence*.

Between the words *have* and *irritability* 3d page, 2d column, 37th line, 2d paragraph; and of the 9th line commencing with the word *the* of the 5th paragraph, 3d page, 2d column, concluding at the word *when* of the last paragraph, page 4th.

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ORIGINAL COMMUNICATIONS.

REMINISCENCES OF FRENCH SURGERY.

The 20th of October, 1829, was a grand day at La Pitié. The amphitheatre was crowded. Lisfranc, the chirurgien en chef, and one of the most eminent operators in France, had told us some days before that he was going to allow an attempt to produce, after amputation, an union of the sides of the wound by the first intention. Such an announcement at this time of day may be considered rather surprising, but it may not be generally known that the common practice in France, on these occasions, is to stuff the wound full of charpie, and never suffer the edges to come in contact, till the ligatures have fallen off. Dupuytren, of the Hotel Dieu, the Venerable Boyer of La Charité, and the Baron Larrey, all men of distinguished reputation, adopt the same course. Their favourite mode of cure is by suppuration and granulation. Lisfranc declared that he never knew an instance, in which *la réunion par premiére intention* was tried, succeed at Paris.

At Montpelier, however, they act differently, though not exactly on the English plan, for there healing by the first intention is successfully practised. It was on the occasion of a surgeon of Montpelier, Professor Delpech I think, being at Paris that Lisfranc was induced to place a patient under his care for the purpose of exhibiting at his lectures the operation and its result. I find the following notes of the case, written at the time, among my memoranda.

A young woman, about 28 years of age, was brought into the amphitheatre. She had been afflicted with a *tumeur blanche* or white swelling of the right knee, a considerable time, on which account amputation of the thigh was decided on. She was placed on the edge of a table, her legs supported by assistants. An assistant compressed the artery at the groin with his fingers, and Lisfranc, standing on the right side of the patient, passed his hand under the thigh, six inches above the knee, and applying the knife to the upper part, well over, drew it round, dividing the integuments. The skin was then drawn back, and he cut about half through the muscles. Retracting the muscles still further, he next cut to the bone. The whole mass being now drawn carefully back, so as to leave the bone clear, he took the saw and said with a theatrical air, "Now, I shall use my left hand," and immediately divided the bone with the left hand.

The intrepidity and heroism displayed by French women during surgical operations, have often astonished me. In this case, however, the agony must have been intense. At the first incision the patient screamed and groaned heavily; the second less, and the third still less, and sawing through the bone appeared to give no pain.

Lisfranc having performed *his* part of the operation, left the after-treatment, as agreed upon, to the Montpelier Surgeon, and stood by, repeating that he had never seen the method proposed to be adopted, attended with success. The surgeon immediately took charge of the stump, and proceeded to take up the arteries with the common small forceps, as is usual in France. In doing this he was at least fifteen or twenty minutes, cautiously tying up every branch and examining the stump after continually drying it with the sponge. Some spiculæ were observed on the end of the bone, which Lisfranc himself cut off with a pair of sharp nippers. The Montpelier Surgeon then closed the sides of the wound together horizontally, and began to fasten the edges together by sewing over them continuously, and leaving the loops of the thread loose. These loops he cut and drew the ends tight, and tied them, making eight ties, which occupied about fifteen minutes. When this was effected he applied the adhesive straps. Along the edge he placed a pledget of charpie, smeared with simple ointment, and then a quantity of dry charpie was folded all over the stump, and the whole kept together by bandages. The patient was then removed to her ward, after suffering very great torture from the protracted operation.

The amputated limb was now laid upon the table for examination and Lisfranc made an incision along the inner part of the knee joint, when instantly a great quantity of the most fœtid green and curd-like fluid gushed from the wound bespattering his arm the whole length. He then laid open the knee joint, which appeared totally free from disease, though he thought that diseased action had commenced. With reference to the treatment of this case, it is plain, I think, that fluctuation must have been long felt, or long feelable, but nothing of a decisive nature appeared to have been done to relieve the patient,

though as Cruveilhier says, an articulation full of pus is in the same condition as an abscess in any other part of the body. Certainly from the manner of his proceeding, Lisfranc had no notion of the contents of the tumour, at least of their extent, (which was more than a quart) for the deluge took him by surprise. Now, if means had been adopted to evacuate the morbid accumulation in time, might not the limb have been saved?

The woman lingered fourteen days after the operation and then died. The body was brought into the amphitheatre on the 3d of November, and the stump then shewed that union of the several parts had actually commenced. The death was ascribed to inflammation of the femoral vein, which it was found necessary to tie, on account of the great hemorrhage from it. The vein was laid open along its whole course to shew the state of the disease. On the subject of producing immediate adhesion, after amputation, it may be here remarked that Professor Roux the Surgeon of La Charité, visited England soon after the general peace, and on his return published his book entitled *Paralléle de la Chirurgie Anglais avec la Chirurgie Française*. In this book he admits the principle of union by the first intention to be applicable, but only in certain cases, although he must have seen the practice constantly adopted with success in the London Hospitals. But old habits are not easily rooted out, and the French Surgeons, expert and skilful as they are, generally entertain the same prejudice. They allow that the *re-union immédiate* has the advantage of producing a speedy cure, of abridging the sufferings of the patient, and of preventing the inconveniences of a tedious suppuration. But, on the other hand, they say that bringing the lips of the wound together at once prevents the easy exit of the fluids which issue from the surface of the divided muscles; and further, complete re-union cannot take place where there are ligatures, and consequently there must remain a sinus along their course, from which the pus can seldom be removed without painful and irritating compression, which must always lead to destroy the adhesions that may have taken place in other parts of the stump.

Union by the first intention after amputation was, of course, unknown to the ancients. They seldom left flesh or flap enough to cover the end of the bone. Indeed, occupied as they were stopping the hemorrhage by compression, cauterization, and with the application of gum and styptic plasters, they never thought of such a process, and had nothing to depend on but granulation after suppuration. The case is different now. Yet the French Surgeons say—if we only interpose between the divided substance a little charpie, the dressings will readily imbibe the sero-purulent secretions supplied by the stump, and the wound being greatly compressed, suffers but a slight degree of inflammation. Then drawing together the sides of the wound, that is, after the ligatures have fallen off, the granulations at the bottom seem as a base to the cicatrization. In short, in about twenty days or a month, they observe, the wound of one of the most important operations may be cured. Still, it is allowed that this method of treatment has also its occasional inconveniences, and these, too, of no small moment; to wit—inflammation of the stump; increasing the cut surface; pain; exfoliation of the extremity of the bone; spontaneous retraction of the irritated muscles; and the conicity, or sugar-loaf shape of the stump, a result most anxiously to be avoided.

Notwithstanding all these hostile contingencies, the practice of keeping the stump open till the ligatures fall off, continues to be pursued in the hospitals at Paris, and far from a little charpie being interposed between the severed parts, the concavity is usually crammed full of dressings by the most eminent in the profession.

James Atkinson.

Barrackpore, Jan. 30, 1834.

MR. CAMPBELL'S CASE OF FATAL EFFECTS OF CALOMEL.

Chota Ram, a delicate lad, 14 years of age, arrived at Catmandoo, from Tirhout, about the 14th of Dec. last. On the 18th he was attacked with the usual symptoms attending Turaii fever when contracted in the cold season—shivering, followed by general fever without any serious local affection. He applied at the hospital, and took from the native doctor two purgative pills containining calomel grs. iij., colocynth grs. viii. and on the following morning 1 dram of the pulv. jalapæ comp.* On the 20th I first saw him; he had been freely purged by the medicine, on the 19th, and up to this morning was free from fever.

20th. Fever returned preceded by ague: complains of pain in right hypochondrium; eyes yellow, tongue loaded white; repeat medicine.

21st. No fever: is freely purged.

22nd. No sleep during the night from violent pain of head and face, left side of face enormously swollen, gums very painful, no salivation or mercurial fetor of breath, slight fever. To have sulphur grs. 30, with opium gr.1½, twice a day, and alum gargle for mouth.

23d. Right side of face equally swollen with left, cannot sleep from pain of face no salivation; continue medicine.

24th. Swelling of face and pain as before, strong mercurial fetor of breath, slight fever which does not intermit. To have pulv. jalapæ I dram; continue sulphur and opium.

25th. Face not so large, left cheek shining, upper lip and left angle of mouth quite hard, inner surface of mouth (left side) ulcerated and of a dark brown colour, no salivation, great thirst, fetor

* This is the house medicine: I always keep in readiness 3 of the Pills contain cal. 4½ grains, ext. colocynth 12 grs.

most offensive, slight fever continues, bowels freely moved ; cont. sulp. et op. To have borax and sugar gargle, and milk diet.

26th. Hardness of upper lip and left angle of mouth increased, the feel of these parts is that of a cancerous lip, hard and unelastic,—ulcer spreading and black, no salivation—all teeth loose, fever and great pain continue ; cont. medicamenta.

28th. All the symptoms increased in severity.

30th. Swelling of upper part of face diminished, but the integuments of nose, upper lip, left cheek, and chin, shining and tense ; ulceration has spread over whole mouth, is foul and discharges a bloody fetid fluid ; he has much difficulty in swallowing, is a little deaf and in great agony, borax wash gives momentary relief, bowels keep open, omit sulp. c opio. R. acet plumbi gr. ii. opii. gr. i. M. ft. pulvis sumat bis in die.

31st. A copious discharge of sanious fluid tinged with blood, from mouth, fetor of breath intolerably offensive, small shreds of putrid skin come away from mouth, fluids with great difficulty swallowed ; cont. med. ut. heri.

Jan. 1st Swelling of face has returned, breathing sonorous, discharge from mouth increased, a similar discharge from nostrils, great thirst, half the fluid taken at the mouth returns by the nostrils, cannot speak, is quite deaf, strength failing fast and emaciation of body keeps pace with it, intolerable stench from whole body, cannot sleep nor lie down, his pain is agonizing, the bloody discharge runs involuntarily from the mouth, the substance of the gums and inside of mouth comes away in putrid shreds, moans unceasingly, and presents altogether a most melancholy spectacle ; continue acet. plumbi c opio R extr. hyosciami gr. vi. h. s. To have spiced madeira ad libitum, tinct. of myrrh gargle and enemas of warm milk to be administered during the day.

2nd. Slept some hours, fœtid discharge flows from mouth and nose, deafness complete, cannot speak or swallow, stench horrible, pulse gone at wrist, cannot turn in bed ; omit. med. omnia. continue enemas.—6 P. M. Moans incessantly, throwing his arms and legs about, points to his face and ears pitifully, no pulse, left cheek and upper lip greenish coloured and soft, enemas immediately ejected.

3rd. 3 A. M. continued to sink, and has just expired.

10. A. M. The mouth laid open by an incision from either angle to corresponding condyle of lower jaw ; the substance of the cheeks and lips, save the integuments, was one mass of black putridity, the gums and palate completely destroyed, the pharynx ulcerated and the tip and edges of tongue destroyed, the teeth as firm as ever and salivary glands natural.

This case needs no comment. A fellow being has fallen a sacrifice to six grains of a medicine, which enjoys the reputation of being one of the best, or has the obloquy of being the most virulent poison according to the fancies of medical practitioners. Few men have the opportunity of seeing the deadly effects of their good intentions, so clear and rapid as this exhibits them, such a sight cannot be forgotten, and a narration of it, however imperfect, may prove a beacon to other men.

On the treatment I have nought to say. Sulphur and opium are often useful in restraining excessive salivation, and I used it here although there was no salivation, because I knew not what else to employ. The acetate of lead with opium I have on four occasions of undue salivation used with apparent advantage, but in this mercurial affection neither were of any avail.*

The total absence of ptyalism and the steadiness of the teeth, notwithstanding the number of days during which the disease lasted, is a matter of interest to me ; but I cannot at present explain it to my own satisfaction.

A. Campbell.

Nepal, January 10, 1834.

HOSPITAL REPORTS.

SUMMARY OF SOME OF THE MOST INTERESTING CASES OF MR. RALEIGH'S WARDS OF THE PRESIDENCY GENERAL HOSPITAL ; FOR JANUARY, 1834.

The cold heavy rain which fell in the latter part of December appeared to form a sort of crisis to the unhealthy state of weather which had for some months previously prevailed. The cold season may be said only at this late period to have been established : the wind, before variable, now set pretty steadily from the north, and the atmosphere became clear and bracing. With this favorable change of weather a marked modification in the character of diseases was observed ; the congestive and gastro enteritic fever, so unprecedentedly fatal during the summer and autumnal months, were now seldom met with, and were succeeded by maladies which, although, in many circumstances, serious, were such as may be considered of a more seasonable and tractable description.

Relaxed by a tropical, hot, and exhausting rainy season, the most robust and healthful constitution is but ill prepared to sustain the shock of an abrupt change to an opposite extreme ; and we find, almost as a matter of course, that those individuals who are predisposed to disease, the immediate cause of which is local determination of blood or congestion, are, from the sudden check of perspiration, exceedingly susceptible of aggravation or recurrence of their complaints. Thus in those, subject to pulmonic affections, the lungs and mucous lining of the air passages are particularly affected. The subject of irritable bowels is attacked with the diarrhœa or dysentery, from a similar increased action in the vessels of the mucous mem-

* Dr. Elliotson of London was, I believe, the original proposer of the sugar of lead and opium treatment in violent salivation ; at least it was from him I first heard of it.

brane of the large intestines, (a tissue, the functions of which would appear to maintain in this country a peculiarly intimate sympathy with those of the skin.) The sufferings of the patient labouring under chronic visceral disease are increased—and even the most hardy habit seldom escapes, with impunity, so sudden a change of temperature as was experienced at the commencement of our present winter in Bengal. Catarrh, rheumatism, slight determination to the head, and colic, may be classed among the more trifling effects.

Intermittent fever and bowel complaints constituted the majority of admissions into the General Hospital during January, 1834; all of which have either been cured, or are proceeding favourably.—No cholera cases have been received.

All the cases of fever which have been admitted under my charge during the month of January, have been of the intermittent type. The most common forms, those in which the paroxysm has been daily, or every second day, most frequently coming on between the hours of 8 and 10 o'clock A. M. or 3 and 5 o'clock P. M. In a very few instances there has been an intermission of three days between the paroxysms. As a consequence, in many cases, the spleen has been engorged, especially in young persons, and particularly in those born in India. The treatment has consisted, first, in clearing the alimentary canal, after which (in cases where no local congestion existed) in the exhibition of quinine in rather large doses; for instance, suppose the patient first visited at 4 P. M. and expecting a paroxysm of ague at 10 o'clock the following day. A purgative was given at night, occasionally preceded by an emetic, and (nothing contra-indicating its use) quinine grs. v. to x. at 5 and 8 o'clock A. M., and from 3 to 5 grains repeated every three or four hours afterwards, at the same time keeping the bowels open by mild aperients. By this treatment I have frequently seen the disease immediately checked, seldom having a second, and very rarely a third paroxysm.

Where engorgement of the spleen has existed, local bleeding, followed by counter-irritation, and the combination of quinine with some mild purgative, such as compound jalap or rhubarb, (carefully avoiding mercury,) has been prescribed; the fulness and induration of the spleen remaining, after the febrile symptoms had left the patient, has subsided under the exhibition of the tonic aperients commonly in use, under the name "spleen mixture" or "spleen powder," gentle counter-irritation being maintained. The diet low or very moderate. I have seen no case lately requiring general bleeding in the cold stage; a remedy which is, under certain circumstances advisable, but in the more usual forms of intermittent fever, is not only unnecessary but prejudicial, in as much as where it is not required, (which is in the great majority of cases) it occasions increased debility, and tardy convalescence. We have unfortunately experienced much inconvenience from having been scantily supplied with quinine. Drachm doses of bark and the liq. arsenicalis have been substituted, but with by no means similar satisfactory results.

DIARRHŒA.

Diarrhœa has been the prevailing bowel affection, and has in some instances been very troublesome. In a great proportion of cases the subjects were stout, healthy individuals, and the alvine discharge was thin fœcal matter. Slight febrile symptoms often existed, accompanied with flatulence, distention and uneasiness of the belly, &c. &c. &c. In such cases, after evacuating the bowels, blue pill, ipecacuan, and extr. cinchonæ or gentian, in small doses, were found useful, with an occasional mild laxative. But persons of weakly habit and long resident in India, suffered much from diarrhœa, in many of which cases the stools were fluid, very frequent, and accompanied by little or no abdominal pain or tenderness; the tongue pale, or of beet root colour, general debility and progressing emaciation. In these cases I found the sulphate of copper and opium of great service, commencing with gr. $\frac{1}{4}$ or $\frac{1}{2}$ each, and occasionally increasing the dose gradually to as much as opii. gr. ss. to gr. i.; cup. sulph. gr. $\frac{1}{2}$ to gr. ii.

Jan. 23—*Case No.* 1.—An elderly man, long resident in India, had watery diarrhœa for a month: purging at present very frequent—prescribed Cup. sulph. et opii. in gr. ss. ter in die.

26*th.*—Only one evacuation in 24 hours—continues well.

Case No. 2.—An emaciated subject: had frequent watery purging, which had continued for a month.

January 10—took cup. sulph. et opii. gr. ss. ter die.

12*th.*—Only 4 stools—16th, 2 stools in 24 hours.

Case No. 3.—A boy, aged 14 years, after fever, had for some weeks had frequent watery purging—subject much emaciated.

January 7—took cup. sulph. et. opii. gr. $\frac{1}{4}$ ter die.; increased on the 10th to gr. ss. of each.

16th and subsequent days, only one or two natural stools in the twenty-four hours—health much improved.

CATARRH.

Some very severe cases of catarrh presented occasionally through the month.

Two or three bad cases of delirium tremens were treated successfully by repeated doses of opium, until sleep was induced.

The following was a very interesting case. J. Huggins, seaman, aged 52, had been ill nine days with, as he stated, "pain of the chest." When brought to the hospital, on the night of 15th January, he was in a state of high nervous excitement: had starting of the tendons, and convulsive

twitchings of the extremities; hurried respiration, quick feeble pulse, faultering voice and imperfect utterance, pain of chest, urgent cough with little expectoration, respiration performed with the diaphragm and abdominal muscles. Prescribed blister to chest, and antimonial opiate.

16th. Appeared sinking, supposed to have effusion into the chest; and becoming comatose.

A blister was applied to the back of the head and neck. Mustard poultices to the feet.

Quinine and Calomel, gr. ii. of each, every 2 hours, with sago and wine now and then.

He gradually improved, under this treatment with an occasional purge, when, the gums having become affected, the calomel was omitted.

On the 24th well enough to join the ship to which he belonged.

20th Jan. Evening. The subsequent case is one of the frequent examples of personal neglect and sacrifice of life to injudicious treatment, which present themselves at the General Hospital, too late for that relief, which might have been afforded at a more early period of their complaint.

M. D., a tall thin man, about 50 years of age, stated, that a month since he perceived pain at the perineum, accompanied by swelling, and that for the last seventeen days the scrotum and penis had been gradually enlarging; his urine passed very scantily, and latterly had been retained. When brought to hospital, the scrotum and penis were distended to the utmost possible degree; the perineum, nates, and upper part of the thigh, were also much swollen; the left half of the scrotum was gangrenous. Had had no stool, and passed no urine for three days; the abdomen distended, a disgusting odour issued from the affected parts; he was emaciated, but had a firm pulse; he was placed in the position as for the operation for lithotomy, and an incision made in the perineum on the left of the raphe, through which a large quantity of urine and pus flowed, the catheter passed through the penis issued at the incision in the perineum, but I found it impossible to distinguish the urethra so as to pass a catheter into the bladder, from the opening in the perineum, three incisions were made in the most depending part of the scrotum and another along the penis.

The whole of the diseased parts were then enveloped in a poultice of linseed meal, in which was mixed spt. camphor ʒ i.

21st. A. M. A large quantity of urine, pus, &c. have drained out, and the parts are much less swollen. I tried again, without success, to find the urethra through the opening in the perineum.

Poultice continued.

R. opii. gr. ss.

Quinine gr. iis. every two hours.

Diet, sago and wine.

22d. Does not appear to have passed any urine: the belly is distended and emphysematous, communicating a crackling sensation on pressure with the hand. In consultation it was considered advisable to puncture the bladder above the pubis, and keep in a canula. ʒ x. of urine were drawn off: medicine and poultices continued.

27th. To this day his pulse has kept up: the gangrenous part of the scrotum has separated, and the exposed testicle and edges of the scrotum look well.

28th. Diarrhœa—thready pulse, and exhausted expression of countenance: the integuments of the belly and groin are puffed up, and the crackling sensation commonly felt where mortification is advancing, is distinguishable over the lower half of the belly, &c.

Died on the 30th.

Post-mortem examination.—On dissection the cellular structure of the perineum, that covering and intersecting the muscles as high up posteriorly as the top of the sacrum, and anteriorly as the anterior superior spinous processes of the ilia, extending on each side, some way over the thighs, was in a state of gangrene: the urethra from the root of the penis to the neck of the bladder was completely destroyed, and at these diseased extremities the canal was ragged and of dark colour: the bladder contracted, its coats much thickened, and the prostrate gland enlarged; the puncture made with the trochar closely surrounded the canula, and no mark of inflammation caused by the operation or allowing the canula to remain in the bladder was apparent.

Nothing unnatural was observed within the abdomen above the pelvis.

CHRONIC INFLAMMATION OF THE KIDNIES.

January 4. G. H., a man about 26 years of age, had for ten months suffered from dull pain in the region of the kidnies; increased on moving, particularly turning in bed, or in stooping and rising up again: aching down the thighs, groins, &c. and at times uneasiness and irritability of bladder: urine always of very dark colour, and at present of brownish or coffee colour.

Eight leeches to the loins and a purgative were first prescribed, and afterwards the daily application of leeches over the kidnies, and three times in the day Pulv. uvæ ursi ʒss, sodæ carbon gr. vi. and a mild laxative every morning, perfect rest, and bland diet.

After perseverance for eight successive days in leeching, lunar caustic was applied over a space six inches long, and two inches wide on each side of the lumbar spine. Medicine continued. By the end of the month he was free from any uneasiness at the loins, &c., the urine perfectly clear, of natural colour, and he was discharged cured.

IRRITABLE BLADDER.

A case of irritable bladder, treated with the pulv. uvæ ursi and soda, mild aperients and bland diet, was completely relieved in fourteen days.

VENEREAL.

The cases of venereal disease have been either simple gonorrhæa, or with sympathetic buboes in one or both groins, and sometimes superficial ulcerations on the prepuce or glans penis ,—or cases of superficial primary ulcerations, with or without buboes: they have all been treated without mercury. In some cases the surface of the sores have at first been destroyed with caustic; in others the black wash only has been required, with mild purgatives. Where buboes were present, leeches, and afterwards the application of lunar caustic over the surface, were resorted to. One case of enormous chronic bubo, which had been treated ineffectually by a variety of means, completely subsided under the application of the lunar caustic.

The gonorrhœal discharge is usually speedily checked by a combination of cubebs and copaiba; a rather nauseous but very effectual remedy: it most frequently causes a relaxed state of bowels, otherwise a mild purgative is required at intervals: when it purges too freely, a very few drops of tinct. opii. may be added to each dose.

PARALYSIS.

A case of that curious and not very uncommon affection, paralysis of the extensor muscles of the hand, was relieved by the application of blisters on the back of the arm, and attention to the state of the bowels: the man supposed it to have been occasioned by sleeping on the arm with the hand bent on the wrist.

Two cases of cut throat, in one of which the trachæa was completely divided, just above the thyroid cartilage, and the œsophagus partially so. Both cases doing well.

HARE-LIP—OPERATION.

A case of hare-lip, with cleft and protruding palate, and the column or lower part of the septum of the nose turned over the tip, forming a second tumour. I removed the projecting palate, then pared the edges of the lip, and brought the everted column down so as to form a septum for the nose. The case is proceeding remarkably favourably, and the appearance of the patient will be very much improved by the operation. The case shall be more fully described on some future occasion.

W. Raleigh, *General Hospital.*

ANATOMY OF A JACKALL.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Sirs,—Utility being the declared object of your journal, and that unincumbered with technical jargon, you will perhaps insert the following memoranda on the anatomy of a common jackall. To this animal Anglo-Indians owe much good health, and a great share of their cold weather sport and jollity. In the field most men know what stuff he is made of, and to this knowledge many of your readers would like to add a peep at his internals, I subjoin a notice of the same to be at your service.

Indian Jackall, male, medium height 14 inches, length from snout to vent 26 inches.

The testicles external in a small round scrotum; the penis as in other canine animals, pointed forwards, the os penis 2¼ inches long, of a triangular shape, tapering gradually anteriorly, where it terminates in a fleshy glans; the urethra runs in a deep groove on its inferior side, and is carried on to the extremity of the fleshy glans.

The bladder 4 inches long, pear shaped, undilated 1¾ inches; the ureters enter its spinal side at 1 inch from the sphincter and ½ an inch asunder.

No vesiculæ seminales; the vasa deferentia, uniting in a common canal, enter the urethra at the posterior margin of a very small prostale gland; the kindneys unilobed 2½ inches along the great arch, greatest diameter 1¼ inch, cortical substance ⅛ of an inch thick, and bears a smaller proportion to the papillary substance than in man; the omentum nearly destitute of fat; the mesentery and meso colon have some fat; and there is a little about the kidneys.

The liver is deeply cleft into 5 lobes, besides a lobulus spigelii; the left lobe by much the largest.

The centre lobe has a sulcus on its under surface, in which the gall bladder lies embedded.

The gall bladder, pear shaped, 2 inches long and 1 inch in diameter: its duct at ½ an inch, from its commencement is joined by the hepatic duct of the left or largest lobe of the liver, and from thence until the common bile duct penetrates the duodenum, 4 smaller hepatic ducts, from their respective lobes, join the cystic duct; the common bile duct penetrates the duodenum 1 inch from the pylorus, and close to the entrance of the pancreatic duct; the bile is thin, and more white than yellow.

The pancreas, as in dogs, is long, narrow, and closely attached to the duodenum. In this animal it is 6½ inches long, ¾ of an inch in diameter.

The spleen 6 inches long,—in structure, liver like, diameter at intestinal end 2 inches, at stomach end ¾ of an inch, its shape is exactly that of a dog's tongue when protruded from the mouth.

The stomach membranous throughout, except for 1½ inch from the pylorus, where it is muscular. Its shape "bagpipe" with a constriction at about 3 inches from the pyloric orifice, length along great arch 16 inches, along small arch 6 inches, this is in an undilated state, just spread on a table. The esophagus enters 2 inches from great end of stomach, mucous coat of stomach smooth and highly vascular, intestinal canal 14½ feet long, nearly of uniform diameter throughout, viz. 1 inch when undilated. Small intestines 12 feet 3 inches long, from cecum to vent 2 feet 3 inches without sacs or longitudinal bands. Cecum 5 inches long, 2⅓ inches its greatest diameter, it has

a contricting band around its centre, which gives it an hour glass shape. Diaphragm strong and muscular throughout. Heart more obtuse at apex than human one $2\frac{3}{4}$ inches long; right lung 3 lobed; left one 2 lobed; a small centre lobe lying between the apex of the heart and diaphragm; right lung larger than left; left lobe of liver larger than right one; apex of heart right in centre, turned not to the right nor to the left; the rings of the trachea incomplete behind,—ribs 13—9 true, 4 false; sternum composed of 9 pieces and very slender and round.

The intestines of the jackall are only 7 times the length of the body, his stomach is a purely solvent one, and his large intestines are not provided with sacs or other hindrance to the rapid passage of food, all these testify his strong carnivorous propensities and habits.

The cecum is larger in proportion than in the cats.

The want of vesiculæ seminales you will perhaps be able to account for, being knowing in such matters. Is it not reasonable to suppose that the want of these reservoirs is supplied by the protracted coition of the dog race, giving time to the testicles for furnishing the seminal fluid.
—Yours, SCALPEL.

Mofussil, January 10, 1834.

Note.—We feel greatly obliged to our able correspondent for his communication and trust we shall soon hear from him again.

From the question at the end of his letter, it would seem, that he still holds the opinion of the vesiculæ seminales being reservoirs for the semen. But such an idea of their use is strongly opposed, by the circumstance af the whole of the marsupial, carnivorous, ruminating, cetaceous, and plantigrade animals, with the exception of two of the last named class, being without them. Mr. Hunter thought, that they add a peculiar secretion of their own to the fluid of the testes. However, this like most other questions of the kind, is unfortunately or fortunately, out of our reach—*Eds. Ind. Jour. Med. Science.*

A QUERY.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Gentlemen,—The talent which the first number of your journal evinces, induces me to put the following query in the hope that either yourselves, or some of your medical readers may be disposed to investigate the matter, and solve a hitherto, as far as I am aware, unanswered question.

Why upon dissecting a human body after dissolution very little blood is found? Now, as physiologists compute that the living body contains somewhere between five and twenty and thirty pounds of the vital fluid, I would wish to know what becomes of the greater quantity, and by what chemical agency this immense difference is effected? Upon opening a body, in most cases, the larger cavities are found full of watery fluid, which I take to be the serum, but what becomes of the cruor or crassamentum of the blood?—Yours,

Jan, 22, 1834. A QUERIST.

THE PHYSICIAN.

No. III.

ON THE CURE OF INDIGESTION.

In the cure of Indigestion not to do, is as important as to do. Leave off every thing that caused the disease, and its treatment may often be left in the hands of the ablest of physicians—Nature herself.

But the first step in the negative treatment of Indigestion is to find out the cause of the disease: and this can only be done by very accurate observation on the part of the patient himself, and very accurate knowledge on that of his medical attendant. One must be mindful of every sympton of sickness; and try to remember what he has eaten, what he has neglected, what he has done that can have brought it on; the other must find out if the facts told to him are correct or not; if the cause assigned is equal to the effects; and above all he must be wary that he does not prescribe for symptoms instead of for disease, that he mistakes not a real for an ideal complaint.

The next best case to that which nature herself can cure, is the one in which she needs to be helped the least; when the bowels are but little out of order, and the health is not much disturbed. Here a few doses of common opening medicine, such as rhubarb, or that combination of rhubarb, with magnesia, and an aromatic, called Gregory's powder, will do well enough; together with shunning every thing that has caused the disorder. If a particular diet is in fault, leave it off; if indolence, take exercise.

But when the matter grows serious—when the disease is confirmed by injudicious treatment, neglect, or the continuing in hurtful habits, it is evident that something more must be done,—the simple application of remedies to symptoms, of extemporaneous physic to extemporaneous pains is found to be worse than useless. The disorder has taken a decided part; and must be attacked on all sides, more especially in that strong-hold of all our ailments, the stomach.

In cases of this kind the treatment may be divided into three distinct heads—*Diet*, *Exercise* and *Medicine*. Under the first are placed all those means, which are in the power of the patient to correct what brought on the disease; under the second, what greatly tends to remove it; and under the third, what will assist the other two in the present emergency, and prevent the like for the future.

With regard to diet, ninety-nine cases of Indigestion out of one hundred arise from some error on this score. Men, notwithstanding what has been said to the contrary, and their more active habits, are certainly more subject to Indigestion than women, because they have less common sense with respect to their appetites; and find it harder to be philosophical to the stomach. But the difficulty of treatment is nearly equal in the two sexes, the one not being disposed to take exercise enough,

and the other equally disinclined to leave off eating to excess.

The dietetic cure of Indigestion then, consists in things that may be eaten, and things that must be eschewed. Pickles, salads, fruits, made dishes, broths, and all the ticklers of the appetite, have been before reprobated; but there are some others, even of a simple kind, that the stomach will not digest. Cheese, fat and salted meats, melted butter, and butter itself, bacon, ham, and oily food of all kinds, for the most part, disagree with persons whose stomachs are weak. Some too have cause to dread what other patients, not worse than themselves, can eat with impunity. Some cannot eat beef; eggs disagree with others: and it is the same with milk, fish, curry, and almost every thing else: forcibly illustrating the saying of our old friend, Sancho Pança, (who by the bye had also somewhat to do with the "physician" in his day) of "what's one man's meat is another man's poison."

With regard to beef. This food is in all countries improper for a person whose digestion is not good; and in India it disagrees with almost every body; which probably was one reason that the cow was made sacred by the founders of the Hindoo religion. On this head it may be remarked that if we carefully look over the Mosaic list of unclean things, (although the cow is not there objected to,) there is scarcely an animal whose flesh is not hard of digestion, from the particularly unclean beast the swine, to the gentle coney, and the fish without fins and scales that liveth in the waters. Thus a test of religion was wisely made the preserver of health.

But to proceed. With wines it is the same as with meats, some are good for one and bad for another. Except bad wines, however, which are so hurtful to all, that the man who wilfully gives out his bad wines to his guests after the fashion of the people of Cana, should be held guilty of a misdemeanour at the least. Good wines, moreover, of some kinds rarely agree with people afflicted with Indigestion. Madeira has a reputation, perhaps not generally deserved, of this kind; sherry, even the best, often leaves an acid taste in the mouth; beer is always hurtful; and the sweet wines are so bad, as to be but outdone by those wretched compositions of spirit, sugar, water, acids and essences, called liqueurs. Spirits have been before decidedly objected to, in any quantity, and of all kinds. And in short, there are but two sorts of wines that can be drank with safety by a patient with this disease, and those are good claret and first rate hock: even these, perhaps, had better be left alone.

Yet in this point, as in all others in the treatment of this changeful complaint, much must be left to the patient's own experience of his case. He may find benefit in a wine at one time that at another did him harm: and he may sometimes do wisely by leaving off all liquors stronger than water. But in this case he must proceed cautiously; for the habit of taking wine has probably grown so much upon him as to make part and parcel of his constitution, and man cannot abruptly change his habits without danger. We get accustomed to a certain degree of stimulus, and being thus organised for a new element, unless we have it we die. The wise physician will not advise total abstinence from strong drinks, in any case when the patient has for a long time been accustomed to them: but he will modify the habit, and while he forbids those that are hurtful, he will still, in moderate quantities, allow those that do no harm. Of these things then we repeat, good claret, and first rate hock, are undoubtedly the best: the former commonly proves a gentle laxative; and the latter seldom, perhaps never, turns acid on the stomach.

With regard to meats that may be eaten by persons troubled with Indigestion, the flesh of the young animal seems to lie heavier on the stomach than that of the full grown. Veal is not so easy of digestion as beef, nor lamb so good as mutton; and this is owing probably to there being more membranous or slimy matter, what anatomists call cellular tissue, in the flesh of the young than in that of the old, in proportion to the muscles or true flesh, so that a larger quantity must be taken to give the same quantity of food. Sucking pig is thus about the worst thing that can be taken, though pork is bad enough. Whatever kind of meat is eaten by the indigestive patient, therefore, should be the flesh of full grown animals.

But of all meats mutton is the very best. It is easy of digestion, and very nourishing; and it does not give rise to any of that sensation of fulness about the throat that is apt to be caused by many others, particularly by beef; or of heaviness at the stomach and sickness, as though that organ laboured under a nightmare, which follows the eating of some others. Mutton too is a meat we do not readily get tired of; it possesses variety in itself, every part having a flavour of its own, so that men not indifferent to good living, have rested well content with mutton every day for months together.

The quantity of the food eaten must be as carefully attended to as the quality: without this, that is in vain. Over-distension causes symptoms as distressing and as dangerous as any that can be produced by food of the very worst kind. Moderation here, as in all other cases, is the best course; and he who goes nearest the golden mean is the wisest man.

Cookery is by all allowed to be a matter of first rate importance, though the grounds may differ upon which it is so allowed by the physician and the cook. The simpler the mode in which meat is dressed the easier it generally is of digestion. Plain roast and boiled dishes, are far better than those which are garnished with sauces and things of that kind, forming what are called made dishes; or of those stews which are sodden in the pot. It is true that in France made dishes form the food of a great majo-

rity of the people, and that the Frenchman is not afflicted with Indigestion more than the Englishman, if indeed he is so much: but before his example can be quoted as to his cookery, we shall do well to imitate him on the score of moderate eating and drinking.

As to the degree of cookery, many writers are of opinion that the meat should be "well done:" others on the contrary think it should be left with the gravy in. Perhaps both are more influenced by taste than by reason. At all events the lovers of "under-done" meats have a good many instances in their favour, if they may be allowed to quote nations, whose food is not done at all. Bruce states that the Abyssinians, who eat their food with all the gravy in that nature has bestowed upon it, are a remarkably robust and healthy people, who seldom go out of the world with Indigestion: and the account of the ambassadors of Cambyses is strongly in favour of the same nation, having been, in even those remote days, a robust race of men. Simple cookery makes wholesome meat.

And yet simplicity like all other things may be carried too far. There are some condiments necessary for man to eat with his food: these are salt and spices. Without the former it has been proved that neither man nor beast can exist, and the condemnation of criminals, in the damp climate of Holland, to eat nothing but bread made without salt, was a well known diabolical invention, to close a life of torture with certain death. Spices are a natural and necessary stimulus to the stomach and cannot be dispensed with, either in warm climates, or in cases where that organ has become weakened by age or disease. The judicious use of spices however, is a different thing to cooking them up with ghee, and butter, and fat, into curries and rich soups: Like all other natural productions, the less they are attempted to be improved by man the better.

Poets, philosophers and physicians have all written the praises of exercise; and appealed to the labouring poor in proof of its virtues. But in the treatment of Indigestion it is too often forgotten that the physician has not a robust labouring man to deal with. He has not to treat even a weak man who is in health, but one more or less enfeebled by disease, both of body and of mind. In this state exercise must be prescribed with caution, and taken like physic, but to a well ascertained extent. Fatigue of any kind, however immortalised by the poet, is to be avoided by the physician; for the general lassitude of the limbs is partaken by the stomach, and if exercise is carried to excess it never fails to encrease the complaint. On this account those long walks called "constitutionals" are often very mishievous; and the rides recommended, often to the young and the delicate, generally do harm from being pursued too roughly. It is no uncommon thing in Calcutta, to see a man walking, as if for a wager, till the perspiration falls from his body, and he is ready to drop: if this happens in the morning, the patient comes home, tired before the business of the day begins, and is obliged to recruit by a second sleep. It is thus too with the young lady, who, after a ride, enough to shake her to pieces, is unfit for occupation until she has again had a sleep of several hours; and then is "good for nothing" as it is called for the rest of the day. This violent seeking after health is the constant forerunner of disease; when repose being necessary, a cure is effected by that, experience, and physic. But sometimes the matter goes too far, the functions of the digestitive organs get so much out of sorts as to become changed into organic affections, when the liver, and the bowels are permanently affected. In the young it often settles on the lungs, and the case terminates in what may be emphatically styled, a galloping consumption.

The kind of excercise useful in Indigestion must depend on the patient's strength. If the strength is but little impaired, walking is, of all, the best kind of exercise that can be taken: but if walking gives so much fatigue, that it cannot be borne to such an extent as to give variety of scene enough to amuse the mind, riding on horseback is a proper substitute; or, if the weakness is very great, in an open carriage.

Water journeying, or sailing, is of the greatest benefit, and one of the most agreeable modes of taking exercise: It may be used in the worst cases, when weakness would forbid all other kinds of exertion. It gives change of scene, and exercise, without fatigue; so that the recoveries are sometimes wonderfully quick and complete. To those, who are fond of sailing, no better mode of exercise can be recommended than this.

One thing however, must not be forgotten; let the exercise taken be what it may it must not be taken on an empty stomach. People who get up early in a morning, and go out without having eaten any thing, are languid, and sick; and the very object for which they rise is defeated by the means they take. Every observant man must have seen what a different being is his horse when taken out without food early in the morning; and when properly fed before he starts. Men and horses are, after all, pretty nearly allied in their wants and their sufferings, so far as the mere animal frame is concerned; and the lesson we learn from the one should be applied to the other. A cup of coffee, a biscuit, a little milk are all good; for it matters not much what the stomach is set to work upon, so that it is not allowed to waste away its powers on itself.

As to the time of exercise in India, the morning, as elsewhere, is the best: but it ought to be the morning. The time should equally avoid trenching upon the night as upon the day. For, those persons who are up and out before gun-fire are quite as likely to suffer from exposure, as those who linger till the sun has long risen above the horizon. The damps, the malaria, that

had ascended high in the atmosphere during the heat of the day, begin to fall after sun-set, and continue falling so long as the air remains cool, till a very little before sun-rise; and exposure to their influence is quite as bad, if not worse, than can be exposure to the rays of the morning sun.

Thus there are four things to be observed in the exercise of indigestive patients: that it is not taken 1stly, on an empty stomach; 2dly—beyond the patient's strength; 3rdly—too early; 4thly—too late.

ON THE COMPOSITION & PROPERTIES OF THE FUCUS AMYLACEUS.

By W. B. O'Shaughnessy. M. D., Assistant Surgeon H. C. Service.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—I beg leave to forward you the results of the analysis you requested me to make of the vegetable substance you sent me under the designation of an "edible moss," and which, as far as I can ascertain, has not yet been described by scientific writers. It is a very small and delicate fucus of white colour, and flattened filiform shape. The longest of the separate individuals in the specimen I received, did not exceed two inches from the ciliary processes corresponding to the root, to the extreme of its ramifications which were not very numerous or regular, I could not discover any organs of fructification, perhaps owing to the season of the year when the fucus was collected. As it is, however, my chief object at present to contribute to the chemical history of the substance in question, I shall not enter into its description more minutely, but I shall venture, for mere convenience of reference, to apply to it the provisional term of *fucus amylaceus*, from its remarkable and important peculiarity of containing a large proportion of true starch.

I proceed to describe the results of the analysis, and I shall subsequently offer a few very brief remarks on the relations the *fucus amylaceus* bears to other edible congenerous vegetables, and I shall then point out the mode in which its alimentary ingredients may be made most available in culinary preparation.

ANALYSIS OF THE FUCUS AMYLACEUS.

Sec. A.

A. 1. Twenty grains of the fucus in its dry state were macerated for 24 hours in cold distilled water. A great increase of bulk was produced, the fucus still retaining its natural outline and proportions as if seen through a powerful magnifying lens. On pouring off the water and removing all mechanically adherent moisture, the 20 grains of the dried vegetable were found to have imbibed of water 54 grains.

2. The decanted fluid *a* 1. was neutral to test paper, did not coagulate on boiling, had a strong saline but no bitter taste, evaporated to the consistence of a sirop, it afforded a flocculent precipitate on the addition of alcohol.

3. The precipitate *a*. 2. when collected and dried weighed 0: 80 grs. it was soluble in water, hot and cold, was precipitated by alcohol and sub-acetate of lead, and with all other re-agents gave the usual characters of *gum*.

4. One half of the fluid from which the gum had been thus separated *a*. 2. when diluted with water, gave precipitates with the nitrates of silver and baryta, but not with acetate of ammonia, tartaric acid or chloride of platinum.

5. The remaining half of the fluid, *a*. 2. evaporated to dryness and the residuum calcined on platinum foil gave a saline mass weighing 0. 65 grs.

From these experiments it is obvious that the fucus under examination differs from the Iceland moss in containing no bitter principle that it holds in combination 4 per cent of gum and 6,50 pe cent of muriate and sulphate of soda.

Sec. B.

B. 1. Ten grains of the fucus were cut into very minute shreds and *boiled* for 24 hours in 2 ʒ distilled water, which was constantly renewed as evaporation required. When allowed to cool, the liquid gelatinized, the jelly being mixed with an abundance of undissolved shreddy masses.

2. The jelly *b*. 1. re-dissolved by boiling, and filtered through muslin was neutral to test papers, free from bitter taste, transparent and colourless, gave no precipitate with tincture of galls, with iodine gave a faint and very transitory blue tinge when cold; was very soluble in caustic potassa, from which it did not gelatinize; acetic acid added in excess to the alkaline solution, separated the jelly unchanged in the form of a clear coagulum.

3. A particle of the insoluble residuum on the filter, *b*. 2. when quite cold was agitated with distilled water in a small glass tube, and iodine added, the particle became gradually blue but the fluid was not affected. The contents of the tube were then boiled, allowed to cool, and more iodine added, with exactly the same effect. The starch remaining in the particle of fucus and not being dissolved from it by the boiling water.

4. The solid residue *b*. 2. weighing 3.50 grs. was boiled in alcohol. The alcoholic fluid separated and dissolved and gave traces of wax.

5. The same solid particles, *b*. 2. thus freed of wax were reduced to a very fine powder by diligent trituration. The powder was boiled in distilled water, the solution filtered and and allowed to cool. Iodine now struck with it an intensely blue colour, 2 grs. of solid insoluble matter containing no starch were left on the filter in this experiment.

6. These two grains were insoluble in water or alcohol, and with the strong alkalies and acids, exhibited the characters of ligneous fibre. Incinerated it gave a minute saline residuum composed of sulphates and phosphates of lime and traces of iron.

Conclusions. The preceding experiments shew that the fucus under examination is composed of *vegetable jelly* nearly identical with the *pectin* of Braconnot, (experiment B. 1. and B. 2.) *true starch* (exp. B. 3. and B. 5.) *wax* (exp. B. 4.) *gum* (exp. A. 2. and A. 3) *sulphate and muriate of soda* (exp. A. 4.) *sulphate* and *phosphate of lime and traces of iron* (exp. B. 6) and lastly *ligneous fibre* (exp. B. 5. and B. 6.)—These ingredients further existed in the following proportions in 100 grs. of the fucus.

Vegetable jelly.....	54	50
True starch.....	15	
Wax.....	.....a trace.	
Ligneous fibre.....	18	
Gum.....	 4	
Sulphate and muriate of soda.	6	50
Sulphate & phosphate of lime.	1	
Iron.....	..... a trace.	
	99	
Assume the traces of *wax* the *iron* and *loss* at.....	1	
Total.....	100	

You are, of course, aware that several individuals of the lichen and fucus families are possessed of valuable alimentary or medicinal properties. While some such as the *Cetraria Islandica* or Iceland moss combine both these virtues in a remarkable degree. The very disagreeable bitterness of the lichen just named, although removeable it is true, by immersion in an alkaline solution, must ever constitute a material obstacle to its general alimentary consumption. In one important particular, namely, its containing no true soluble starch the Iceland moss is moreover far below the fucus amylaceus in alimentary value. The same observations apply almost as aptly to the celebrated *Eladonia Rangiferina*, or rein deer moss which is quite as bitter as the former. Among the *fuci* several very curious individuals are included, some of which are of known alimentary utility. One of the most singular of these is the *gelidium corneum*, valuable from the immense quantity of soluble and nutritive *pectin* which it contains, and from its entering according to the statements of M. Fee into the formation of the edible swallow's nests of the Javanese highlands. The *Lammaria Saccharina* is interesting from the fact of its containing sugar. It is highly esteemed in Japan, where it is extensively used as an article of diet, being first washed in cold rain water and then boiled in milk or broth. Another, the *durvilia edulis* of Bury St. Vincent, is sold commonly as a vegetable for the table in the markets of Chili, but I believe it has never been subjected to chemical examination. In Great Britain the *fucus crispus* or *laciniatus* has recently attracted much attention. This production abounds on the western coasts of Ireland, round the Orkneys, Hebrides, the Scilly Islands, &c. indeed every where except on the limestone or chalk maritime districts. It enjoys high popular celebrity as a remedy in Pthisis, and in Ireland it is but too well known as the occassional resource of a famishing population. By long decoction it affords a considerable quantity of a nutritious but nauseous jelly, the unpleasant flavour being chiefly owing to the very large proportion of sulphate of soda it contains. Starch, however, does not enter into its composition, so here this individual also yields in value to the fucus amylaceus which contains no bitter or unpleasant principle, no iodine, and but a very moderate proportion of sulphate of soda.

From the preceding remarks the probable value of the fucus amylaceus may be readily inferred. With regard to the best mode of rendering it available as an article of diet, I made several experiments which I need not describe minutely, but the results of which afford some useful indications.

In the first place from the tendency of *pectin* or vegetable jelly to form insoluble compounds with saline and earthy bases, it is necessary to steep this fucus for a few hours in *cold rain water* as the first step in its preparation. This removes a large portion, if not the entire, of the sulphate of soda, leaving all the gelatine and starch. It should next be dried by the sun's rays and *ground to a fine powder*, I say *ground*, for cutting or pounding, however diligently or minutely performed, still leaves the amylaceus globules so mechanically protected and so closely involved in an external sheath of tough ligneous fibre, that scarcely a particle of the starch can be extracted by boiling, even though the decoction is prolonged for several hours. For the experimental proof of this statement the reader is referred to the analysis sec. B. 1, 2, 3, and 5. When *ground*, on the contrary, boiling for 25 minutes or half an hour dissolves all the starch and gelatine. The solution while hot should be passed through muslin or calico, and thus the ligneous fibre is removed, lastly the strained fluid should be boiled down till a drop placed on a cold surface gelatinizes sufficiently.

With milk and sugar, and flavoured with lemon juice or sherry, this substance when prepared as I direct, would afford the invalid a pleasant article of diet, especially at sea, where other jellies or their materials cannot be so easily preserved. As I am informed that this fucus is found abundantly on the eastern coast of Bengal, I entertain considerable hopes of its being hereafter found available also in several processes of art and in various manufactures, to which it would be perhaps misplaced to allude more minutely in the columns of this journal.

I am, Gentlemen, your faithful servt,

W. B. O'Shaughnessy, M. D.

Asst. Surg. H. C. Service.

Genl. Hospital, Calcutta, February, 1834.

ANALYSIS OF TEA.

Translated from Berzelius "Traité de Chimie.—2e partie—Chimie Organique," for the India Journal of Medical Science.

BOHEA AND GREEN TEA.

Tea has been analized by Frank. Distilled with water it loses all odour, and the product of the distillation shews traces of a volatile oil. The aqueous solution contains mucilage, and tannin which blackens salts of iron. Black tea contains more tannin than green. The residue digested in water gives vegetable albumen to caustic potash. Alcohol and æther, with which it has been treated, take from it neither fatty oil, nor resin. Green tea contains 34·6 of tannin, 5·9 of mucilage 5·7 of vegetable albumen, 51·3 of insoluble vegetable fibre (loss 2·5). Black tea contains 40·6 of tannin, 6·3 of mucilage, 6·4 of vegetable albumen, 44·8 of ligneous fibre (loss 2·0). The ashes of both species of tea contain silex, carbonate of lime, magnesia, and chloruret of potash. Frank's proportion of tannin is too large, and is mistaken for all the substances soluble in alcohol when agitated on the aqueous extract of tea. Davy on the other hand found in souchong tea 32·5 per cent. of extract, of which 10·0 parts only were precipitated by isinglass, thus the 22·5 parts remaining did not consist of tannin. In like manner he found but 8·5 per cent. of tannin in green tea. According to the analysis of an anonymous English chemist, tea contains also a small quantity of a resin which is soluble in alcohol, and which possesses a very agreeable odour of tea. The following table shews the results of his analysis; the different species of tea being ranged in the order of their price, commencing by the dearest.

GREEN TEA.

100 parts of tea give		Soluble: in water	Soluble: in alcohol	precipitated by gelatine	insolube fibre
No.	1	41	3	31	56
	2	34	9	29	57
	3	36	7	26	57
	4	36	6	25	58
	5	31	10	24	59

BLACK TEA.

100 parts of tea give		Soluble: in water	Soluble: in alcohol	precipitated by gelatine	insoluble fibre
No.	1	35	1	28	64
	2	34	3	28	63
	3	35	2	28	63
	4	35	1	24	64
	5	31	4	23	65

The species of tea No. 5 is only half as dear as that No. 1. The gelatine used in the operation of precipitating by that substance was isinglass, and the precipitate was dried in a temperature of 100°. It is estimated to contain from 40 to 45 per cent. of tannin.

Finally Oudry has announced that he has discovered a salifiable base in tea. To obtain it he infused 12½ parts of tea in 200 parts of hot water, in which 3 parts of muriate of soda had been dissolved. At the end of 24 hours he evaporated the liquid to dryness, treated the residue with alcohol of sp. gr. 0·81, evaporated, dissolved the alcoholic extract in water, and digested the solution with pure magnesia. The liquor filtered and evaporated unto a certain degree of concentration deposited crystals of *theine*. The magnesian precipitate treated with alcohol yielded a certain quantity of this alkali. According to Oudry theine is soluble in 35 to 40 parts of water at a temperature of 10° crystallizing from this solution in regular, fine, colourless crystals. Alcohol dissolves it in all proportions; but this solution furnishes crystals of an irregular form. When heated it fuses, and at a very high temperature is decomposed, leaving a coal. Notwithstanding that theine shews no alkaline re-action, Oudry regards it as a salifiable base, and imagines that he has obtained crystallizable salts with the sulphuric and citric acids. This however needs confirmation.

MR. WARDROP ON SURGICAL OPERATIONS.

Modes of alleviating pain before an operation.

Besides using every endeavour to tranquilize the patient's mind before an operation, there have been various means proposed to alleviate his immediate sufferings or to diminsh the pain of operations. This may be accomplished by the internal exhibition of opium, a large dose being given half an hour or even for a short period before the operation, and repeated immediately after it. The opium given before the operation is best exhibited in the form of *laudanum*, a full dose of which, not less than forty or fifty drops, may be exhibited in a common saline draught, as in this form its effects are most speedy, and it is less likely to disturb the stomach.

After a severe operation I usually give *opium* in its solid, crude form, and I think there is great benefit derived from exhiiting it combined with *calomel*. You may in general give two grains of opium with five or six of calomel in the form of a pill, immediately after the patient is put to bed, and every thing about the room has been arranged, so that his repose may not afterwards be disturbed. Calomel seems to have its action on the biliary organs, which are always more or less deranged from the mental excitement, which the patient has suffered, both previous to and during the operation. It thus diminishes, or even prevents, the accession of any subsequent febrile action.

Often, however, it happens that notwithstanding the free use of opium, the mind of the patient is far from being tranquiliz-

ed, and this mental inquietude renders any effects to alleviate the pain of the wound altogether ineffectual. It is, therefore, a great desideratum in surgery to discover a mode by which the pain of surgical operations could be either alleviated or diminished.

Case.—A young woman applied to me some years ago to have a tumour removed from her head, being convinced of the necessity of the operation from the opinions she had received from several eminent surgeons. The tumour was of a very moderate size, was attached to the cranium but could easily be removed. When I first attempted the operation, the moment the scalpel touched the skin she leaped from her chair; and would not permit me to proceed. In a second attempt she allowed herself to be placed upon a table, and her arms and legs to be secured by an ample number of competent assistants, notwithstanding which, the instant she perceived the instruments touching her, with a convulsive effort she wrested herself from their hands. Her mind now became exceedingly distressed, finding that there was no other mode by which she could get rid of the tumour. At the same time, she was strongly impressed with the necessity of the measure. Under these circumstances, she repeatedly urged me to contrive some method of securing her, so that the operation might be performed with safety; and after again and again reflecting on the subject, it occurred to me that if I could induce a state of syncope, there could be no reason why the operation should not be performed while she remained in that state. To this proposal she readily acquiesced, and after every necessary preparation, I opened a vein in her arm while she remained in the erect posture, in order that fainting might be produced with as little loss of blood as possible. It was not, however, until fifty-four ounces of blood had been withdrawn that she fell into a state of complete syncope. Immediately after this I proceeded to the operation. As you may suppose, it was performed with unusual facility, no blood coming from the wound to interrupt the dissection. After the tumour was removed, and the diseased bone cauterised, she was carried to bed, where she soon recovered from the syncope; and so unconscious was she, that the operation had been performed, that she could not give credit to our assurances until a mirror was brought to her, in order that she might see a reflection of the wound. An account of this case is published, with some observations thereon, in the 10th vol. of the Medical and Chirurgical Transactions, and since that period it has often occurred to me, that the principle of producing a state of syncope before an operation, in order to save pain, might be occasionally adopted with great advantage. There are a number of facts which could be brought forward in order to establish the propriety of such practice. In the majority of the more severe operations, patients are seldom removed to their beds without being brought; from the quantity of blood removed and the mental agitation, to a state approaching to syncope; and if this state does not militate against the recovery of patients from such operations, might it not be a rational practice to produce this state previous to the operation, and thus save the pain of it? I shall have occasion, by and by, to point out the general fact, that the number of recoveries from operations is usually in proportion to the quantity of blood lost during their performance. I mean to be understood, that in all operations, where the patient has lost a considerable quantity of blood, there is generally the least subsequent inflammation of the wound, and fever; the only class of symptoms which usually retard the progress of recovering from operations. The removal, therefore, of blood before an operation in such a quantity as shall produce syncope, would appear to be rather a beneficial than an injurious measure, as far as regards the subsequent healing of the wound. In the reduction of dislocations and of hernia, it is a common rule of surgery to produce syncope, before an attempt is made at reduction, either of the misplaced bone, or of the prolapsed intestine; and why should not the same practice be adopted, in order to save the pain of an operation? So much am I convinced of the propriety of such a practice, that I shall embrace the earliest favourable opportunity of putting it into execution; and whenever I meet with a patient requiring an operation, who has a great dread of pain, I shall certainly produce in him a state of syncope; and in that state perform the operation. Future experience can alone point out the circumstances under which such a measure can with safety and propriety be adopted.

Effects of Syncope.—After an operation it is of great consequence to place the patient under circumstances where he may enjoy the most perfect tranquility and uninterrupted sleep. It is a common practice to give wine and such-like cordials, with a view to relieve the state of syncope or depression, which usually occurs during the performance of, or which follows, operations; but I would recommend you not to have recourse to those measures, and rather to consider such state of collapse favourable to the future recovery of the patient, as nothing will contribute more towards preventing the accession of any febrile symptoms. Of late years, particularly, I have strictly followed this practice,—a practice, it must be admitted, very opposite to that usually pursued; for, generally, when a patient becomes faint during an operation, not only is wine given, but the surgeon does not even proceed with the operation until the patient recovers from the syncope, or when syncope comes on after the operation, then it is the custom freely to give wine until the vital powers are restored. Instead of following these rules, you ought to take advantage of the *insensibility* of the patient in a state of

syncope, and of the parts not being gorged with blood, to hasten with the operation; and, as has already been said, instead of using artificial means to restore the heart's action when syncope succeeds an operation, the longer that state is protracted the greater will be the check given to the occurrence of subsequent inflammation.

An inflammed state of the wound, accompanied by fever, is by far the most usual, and the most dangerous state, which can follow an operation; for which reason I shall first direct your attention to this subject. It will be generally found, that within the first twenty-four hours, and often in even a shorter time, a very correct estimate may be formed of the probable degree of violence of the febrile attack, which is likely to come on after an operation. It has been observed by Dupuytren, the most celebrated surgeon of our time, that of all those who died at the Hôtel Dieu, after operations, the majority perished in consequence of inflammation of an internal organ; sometimes two, or three, or even four organs, having been thus affected in the same individual.

Bleeding from the Wound.—Nothing will tend so much to diminish this inflammatory disposition, as attention to those precautions which have already been pointed out, as requisite in the *previous treatment* of the patient; and it will be seldom found in those cases in which the wound made during the operation has bled freely, but there is much subsequent inflammation. Hence, it may be observed, as a general maxim, that those who lose most blood during operations, have the least subsequent fever, and with them the wounds heal most rapidly.

It is indeed extraordinary, the quantity of blood which a person in health may lose with impunity at one time; hence, after the syncope which follows an operation has passed away, the patient who had lost an immense quantity of blood often seems not to suffer from it in any way. This observation is strikingly exemplified in the field of battle; and it was remarked of the wounded soldiers at the conflict at Waterloo, that many who had been left on the field, until the third and even fourth day, after that memorable battle, from being supposed to be either dead, or in a hopeless condition; recovered much more rapidly than those who were first received into the hospitals. This could only have arisen from the great loss of blood, and the want of food to which they were exposed for so long a period after they were wounded, which, if it did not prevent the accession of inflammation, at least rendered it mild and harmless.

Case.—I removed one-half of the lower jaw from a young woman of a delicate frame, and it was estimated, that she lost not less than *three pounds* of blood during the operation. The effect of this great depletion was, that scarcely any feverish symptoms supervened, and almost the whole wound healed by adhesion, the girl leaving the hospital on the thirteenth day after the operation.

Case.—A gentleman received a compound dislocation of the ankle joint, in order to reduce which, the surgeon thought it necessary to produce a state of fainting, and accordingly bled him at the arm. The operator removed not less than three and a half pounds of blood, the effect of which was not only to enable the dislocation to be reduced with facility, but the loss of so much blood completely prevented any subsequent inflammation of the wound, or severely injured parts.

There is a circumstance regarding the operation for *cataract*, which may be noticed here, as it illustrates the foregoing remarks. In extracting a cataract, it is well known that there is never any loss of blood from the wound, which circumstance is probably the cause of there being always more or less subsequent inflammation, and therefore that operation is seldom performed, without its being necessary to remove some blood from the patient afterwards.

If therefore, so much benefit is derived from a comparatively large quantity of blood being lost during operations, and if, also, the state of syncope or collapse equally contributes to prevent the accession of inflammatory symptoms, both the bleeding from the wound, and the occurrence of syncope, ought certainly to be regarded as auxiliaries to success. The syncope which takes place both during and after operations, has never, as far as I know of, been attended in any instance with bad effect, and therefore a patient ought not, by the admission of fresh air, or the exhibition of cordials, to be too hastily roused out of that state. Neither ought the bleeding from the wound to be stopped, until a considerable quantity of blood has been abstracted, except only when vessels of considerable magnitude have been divided, or the patient, previous to the operation, has been in a state which makes it of importance that much blood should not be lost.

The effect to be anticipated from thus at once checking all inflammatory action, is not only to prevent the accession of inflammation of any vital organ, but to secure the process of adhesion, or to get the wound to heal, as it is usually called by the "first intention," when that is desirable.

It is well known, that the less the inflammation which attacks a wound is, the more certain are the edges of that wound to adhere by the "first intention." On the other hand, when inflammation, even to a trifling extent, attacks a wound, such as that made in the operation for hare-lip or for the excision of a cancerous lip, union is thereby greatly prevented, and ulceration takes place.

Often, however, it happens, that a patient may have lost a considerable quantity of blood during an operation, and have undergone a rigorous previous treatment, and still inflammatory symptoms do supervene, which can only be relieved by an active system of treatment. This treatment con-

sists chiefly in bleeding, purging, and the exhibition of the *tartrate of antimony* or mercury.

Venesection.—In the adoption of venesection, you are to be guided by the local pain, and by the state of the pulse and skin. There is often a local pain after an operation, which is not of an inflammatory type, and which may be relieved by a full dose of opium, but whenever, along with the pain, the pulse becomes strong and full, then venesection ought to be employed.

While endeavouring to point out the general rules for abstracting blood, I shall particularly dwell on the symptoms which ought to guide you in estimating the quantity to be removed. Suffice it now to observe, that when it is necessary to have recourse to bleeding after an operation, the first bleeding ought invariably to be carried to the full extent; by which, let it be understood, that the blood should be allowed to flow, not until the pulse is reduced, but until it is imperceptible at the wrist, or until syncope takes place.

Purgatives.—Whenever there is any accession, or any increase, of febrile symptoms after an operation, always examine into the state of the *primæ viæ*, where generally the cause of the disturbance will be found. It often happens, that without any febrile symptoms the wound becomes painful, and whenever the bowels are freely evacuated the pain is removed ; bnt when febrile symptoms have supervened, and it has been necessary to employ venesection, it is then advisable not to be satisfied with merely evacuating the bowels, but they ought also to be more or less purged.

Calomel and Opium.—In some cases, notwithstanding the free use of the lancet, the wounded parts remain unnaturally red and painful, and the pulse indicates the impropriety of abstracting more blood. Under such circumstances, much benefit will arise from the internal use of calomel and opium, the tartrate of antimony, or colchicum. A couple of grains of calomel, with one of opium, may be given every two, three, four, or six hours, according to the severity of the febrile symptoms, and the effect of the remedy ; or the tartrate of autimony may be administered in such doses, and at such intervals, as shall keep up nausea, and thus diminish the heart's action. The colchicum is also a useful remedy in some cases, and more particularly in those where there is a gouty disposition. From ten to twenty drops of wine of colchicum combined with magnesian salts, may be given at intervals of four, six, eight, or twelve hours, according to the violence of the symptoms.

The warm bath is also a useful agent, and there is scarcely any circumstance under which it may not be advantageously employed, evacuations having been previously obtained to the necessary extent. So also counter irritants, blisters applied at a distance from the inflammed part, or sinapisms to the feet, have often the effect of alleviating that peculiar state which bleeding cannot relieve.

Secondary Hemorrhage.—Next to inflammation and fever, hemorrhage after amputation must be considered the most serious consequence of surgical operations, and it has often been the cause of their fatality.

Treatment of the Wound.—For some years past I have been in the habit of using as little dressing as possible to all recent wounds; fully convinced, that the attempts usually made to draw forcibly and keep together, the edges of the wounds, by the application of plasters, ligatures, and bandages, are the chief causes of consecutive inflammation. In treating, therefore, a wound made by the operating knife, I always make a distinction between those cases in which it is desirable and practicable to procure adhesion, and those in which the wound is to be healed by the process of granulation and cicatrization. In the first class of cases, the lips of the wound, though readily brought in contact, must be kept together by artificial means, such as stiches, pins, adhesive plasters, and bandages. But when it is known, that the lips of a wound cannot adhere together, then instead of endeavouring to effect union by adhesion, and forcibly bringing the edges of the wound together, the cavity of the wound should be filled up, and covered with nothing but clotted blood. The effect of this practice generally is, that no inflammation, or even redness, comes over the adjacent integuments; and the wound gives no pain. After the lapse of a few days, the coagulum of blood, which thus forms a most mild covering to the newly divided parts, is separated, the process of granulation and suppuration having commenced underneath. It is in this state that artificial means may sometimes be employed to assist nature in bringing the sides of the wound together, for adhesive plasters may be now used to aid the process, without risk, either of irritating the granulating surface, or of creating inflammation in the edges of the wound. I have been led to this mode of treating wounds, step by step, first adopting it only, in small incisions, but finding it so beneficial as now to employ it in all cases, even of the largest wounds.

Case.—The mamma of an aged female had attained so enormous a bulk as to render her life most uncomfortable. The weight made it agonizing when she was either sitting up, or lying upon her side; and it was so great as to prevent her breathing, when she attemped to lie on her back. No contaminated glands could be detected, and except this tumour she had no apparent disease. Though well aware of the uncertainty of ultimate result of an operation, yet I was induced to perform it by the urgent entreaties of the patient; and by the hope, that being relieved of the burdensome torture of such a formidable mass of disease, her future sufferings would be greatly mitigated. In performing the operation, every possible endeavour was made to dissect the tumour away as quickly as possible ; and although the bleeding was exceedingly profuse during the operation, the fingers of

the assistants being ready instantly to press on every divided vessel until the whole mass was dissected away, only four vessels were afterwards deemed necessary to be secured with ligatures. The largest wound surface I ever beheld was now exposed, and no dressing of any kind applied to it but a few pieces of lint on the surface, in order to absorb the more blood, and form a more complete covering to the wound.

The result of the operation, and the mode of treating the wound, were equally satisfactory. With the assistance of opiates she remained free from pain, and the absence of the enormous swelling enabled her to sleep with a comfort long unknown to her. The striking feature in the history of this wound was, that the large thick clot formed by lint and coagulated blood remained for upwards of thirty days, the process of granulation, approximation of the edges, and cicatrization of the wound, going on underneath this cake, so that when it separated, but a very small surface remained open. Hence, by the simple treatment of merely covering a large wounded surface with coagulum of blood, this patient was saved all the daily suffering of the usual plasters and bandages applied, and all the irritation and the inflammation of the adjacent integuments, which such dressings never fail to create.

Diet.—As a general rule, patients under treatment for an operation, ought never be allowed to taste any but vegetable food, and that in a liquid form, as long as there are any febrile symptoms. Gruel, tea, fruit, and various acid drinks, ought to be their only sustenance; and you will constantly observe, that the more simple in quality, and the less in quantity, is the food of patients who may have undergone important operations, the less fever will supervene, and the more quickly will the wounds heal. When all danger of the immediate effects of the operation are over, as regards inflammation, then may the patient be allowed a a small quantity of chicken or veal broth, or of beef—tea. But it is proper to commence sparingly, and watch their effects; for if they produce any heat of skin or restlessness, and symptoms of indigestion they should then be discontinued.

I have generally noticed, that as long as a patient is confined to bed, so long is it hurtful to give him animal food, particularly in a solid form; but when he is so far recovered as to be sitting up and removed into another apartment, he may then begin its use cautiously. I say cautiously, because, from the stomach having been a longer or shorter time unaccustomed to digest solid animal food, when it again receives it the digestive powers will be found very feeble; and if more is taken than can properly be digested, the train of symptoms which sometimes ensue, is incredibly severe. I have seen great advantage derived from giving the patient, when he commences taking animal food, a common aloetic pill, and one of the compound rhubarb pills, immediately before his meal, by which the digestive process appears to be much assisted, and the bowels afterwards well regulated. Patients should not eat solid animal food more than once a day under almost any circumstances.

It is seldom necessary to give cordials during the progress of the cure of a wound, and I always follow the rule of not giving them until the lapse of several days. If they are given a day too soon, they may do much mischief, whereas the delay of a few days can be of comparatively little consequence. By cordials, I allude chiefly to wine and malt liquors. When the pulse is very low and feeble—the granulations of the wound pale—the discharge profuse—the patient's strength much exhausted, then wine and malt liquors may be prescribed, but they should always be used with great caution; and whenever they make the patient feel heated and restless they should then be discontinued. As a general rule I would therefore remark, that those patients who are more reduced before operations, who lose most blood during them, and who get the least food after them, recover far more speedily than those who have been treated on the opposite system.

Case.—The pernicious effect of the too early use of animal food was exemplified, in an extraordinary degree, in a patient after the operation for hernia. A gentleman in the vigour of health had a strangulated inguinal hernia, to reduce which he had been profusely bled and had other means employed, without effect, I saw him but a few hour after the strangulation had taken place, and from the excessive tenderness of the tumour, feeble state of his pulse, and other circumstances, I determined on performing the operation immediately, which was accordingly done. From the period of the operation, his recovery went on progressively, and the wound was healing with great rapidity, when on the eleventh day, feeling in every respect convalescent, and having a great desire to eat animal food, he partook of a small piece of beefsteak. The consequence of this was, that febrile symptoms soon supervened, and a surgeon being sent for during the night, he found him complaining of great pain in the wound, extending into the abdomen, which induced him to bleed the patient freely. It is needless to detail the particular symptoms which succeeded this attack. I shall only state, that this patient required not less than six weeks active medical treatment, before he was restored to the state of health, which he enjoyed before he partook of the animal food.

Case.—The case of a medical practitioner, which excited great interest at the time, also illustrates the pernicious effects of eating animal food, too soon after an inflammatory attack.

This person in dissecting the body of a female who had died of puerperal peritonitis, pricked his finger, the consequence of which was that the wound inflammed, and the inflammation extended in a violent legree along the limphatics of the arm. These symptoms were completely subdued by venesection, and the application of a

great number of leeches. When he was in a state of convalescence, he accidentally smelled some cooked animal food and insisted on having a portion of it. He ate but a small quantity of broiled mutton, soon after which he became exceedingly uneasy and passed a very restless night. On the following day erysipelas appeared upon the arm, and so severe was the attack, that though depletion was carried as far as possible, from the very first appearance of the symptoms, his life was conceived to be in imminent danger, and it was many weeks before he perfectly recovered.

Case.—A youth accidentally received some shots on the back of the head from a fowling piece. When he was in a state of convalescence, he was induced to eat a small portion of animal food, and to drink a glass of wine. During the night he became feverish, symptoms of inflammation of the brain rapidly succeeded, and on the fourth day, he expired. Stimulating drinks are equally as pernicious to the healing of wounds, as improprieties in food.—*Lancet, August,* 1833.

CASE OF ENLARGEMENT OF THE TONGUE.

Mrs. P. aged 40, and in the last month of pregnancy, felt one day an uneasiness in the mouth. The following day I was requested to visit her, and found that she was unable to close the mouth completely; and on examination I perceived the sublingual gland on the right side to be much enlarged and painful, the flow of saliva increased, and difficulty experienced in swallowing. Her speech was altered, but her breathing was not much affected.

I directed gargles to be used, and leeches applied outwardly; added to which I gave aperient medicines. The next day I found the gland still swollen, and likewise that side of the tongue, which gave the patient's mouth a distorted appearance. The jaws were still more separated; the speech could scarcely be understood.

In order to give relief, I made two incisions along the side of the tongue, from which flowed about a tea-cupful of blood. The patient felt somewhat relieved by this treatment. This was done in the afternoon. But when I saw her again the following morning, the whole of the tongue was swollen to such a size as to alarm every person, and threaten the almost speedy suffocation of the patient. A large portion of it protruded from the mouth, and separated the jaws to their full extent. At this time articulation was impossible, and also deglutition. I now resolved to make an incision along the whole course of the raphe, sufficient to procure a free bleeding. The quantity of blood obtained was fourteen or sixteen ounces, and in a very short time I had the satisfaction to find the patient very much relieved by it.

After this second operation the tongue soon became diminished in size, allowing the patient to breathe more easily, and in a day or two the jaws could be more approximated to each other.

But even now, during this interval of ease, the peculiar condition of the patient was still a cause of much anxiety, though she was able to speak a little and swallow liquids; for, instead of finding rest and becoming composed after this severe trial, symptoms of labour began to come on, and in the course of a few hours delivery took place. Nothing particular occurred in the labour with the exception of the placenta being retained a little longer than usual.

During the night she slept occasionally, and the next morning appeared as well as I could reasonably expect.

The case went on very well; the tongue did not shew any disposition to enlarge again; in a few weeks the patient recovered, and I am happy to add, is at this time alive and quite well.

What gave rise to the enlargement, I could not satisfactorily ascertain.—*Medical Gazette, August* 1833.

CASE OF IDIOPATHIC GLOSSITIS.

Henry Lane, aged 41, applied January 14th, with a swelling of the sub-maxillary glands, occupying the whole space between the angles of the jaw, and which occasioned slight difficulty in deglutition. The tongue moist, but covered with a creamy fur: pulse but little accelerated.

Ordered leeches and fomentations with active purgation.

On the following day the glandular swelling became more painful, but in other respects the same. Leeches were again applied, and poultices directed to the part. During the night the tongue was affected with a severe shooting pain, and rapid swelling supervened, so that, when called to him in the morning, I found it filling the entire cavity of the mouth, and partly protruding between the teeth; its mucous membrane appearing in spots of a vivid red, and the slightest touch giving most acute pain. Respiration extremely difficult and quite unable to articulate or swallow; the pulse full and frequent. More active depletive measures were adopted; he was bled to ℥xx., a large blister applied to the throat, clysters administered, and the mouth washed frequently with an astringent gargle.

By this treatment in a few days, the tongue and sub-maxillary glands regained their natural state; and nothing happened to retard the convalescence of the patient beyond the sloughing of a small portion of the tongue, in consequence of pressure against the teeth.—*Medical Gazette.*

ENDOSMOSE AND EXOSMOSE.

"In the year 1827, Dutrochet announced that a liquid of a certain density, enclosed in an animal membrane, would attract a less dense liquid divided from it by the membrane. Let there be, said he, a glass funnel terminating with a tube, and let the mouth of the funnel be covered over with an animal membrane glued to its sides; or take the cœcum of a fowl, and insert into its opening a straight tube, not a capillary one; if we now plunge it into

water, either the funnel or the cœcum having within them a fluid denser than water, the latter will be attracted, or rather pushed, as it were by force a tergo through the membrane, and the fluid within will presently reach the top of the tube and run over; this is endosmose. If on the other hand, the enclosed fluid be less dense than the water, it will be attracted out into the surrounding water, and the funnel or cœcum will be left empty ; this is exosmose.

" It seemed to me that I had so often observed the contrary, that I hastened to repeat the experiment anew, with a certain number of liquids more dense than water, such as solutions of salts, &c. and they completely contradicted the fact of Dutrochet [M. Raspail here refers to his articles on the subject in the Bulleten des Sc. Naturelles.] M. Dutrochet presently replied to me by limiting his general law, and applying to no more than a certain number of organic substances. Gum arabic and albumen he cited as particularly proper to attest the phenomenon. This explained the whole matter ; the new law was now clearly nothing more than the law of imbibition ; for gum arabic and albumen rudimentary tissues do not pass through organized membranes, while, on the other hand, they have a strong affection for water, by which organized membranes are permeable. Now if you put albumen into the cœcum of a fowl, terminating in a tube of glass, and plunged into water, what takes place ? Why, the cœcum in the first place will imbibe the water ; the albumen will then do the same : and this cannot take place, of course, without an augmentation of its volume, and the occurrence of the other phenomena just now described.

" Let the cœcum be filled with alcohol and plunged into water ; the alcohol, not passing through organized membranes, will become saturated with the water, which does pass, and so its volume will be augmented. In like manner would it be with sulphuric acid, had not this fluid the property of rapidly disorganizing tissues. Again, replace the membrane at the mouth of the funnel with a piece of very thin free-stone : put oil into the funnel, and plunge the whole into alcohol or æther. The alcohol or æther passing through the pores more rapidly than the oil, will soon add to the bulk of the fluid within. In fine, let the gum, in place of being dissolved be introduced into the funnel in masses ; it will presently begin to dissolve ; or if you put quick-lime in the funnel, it will be slacked, &c.

" The phenomena, therefore, differ in no respect from those of imbibition ; and the endosmometre of M. Dutrochet, can only be considered as a simple and amusing apparatus for exhibiting well known appearances. Accordingly we find that the great law, the discovery of which was so much admired by the institute, has successively through the hands of reporters and the author himself, sunk from the rank of a law of general physics, to one of animal or vegetable physiology."—*Review of Raspail's Organic Chemistry in Medical Gazette, August* 1833.

SIMPLE MODE FOR REDUCING A DISLOCATION OF THE SHOULDER.

To the Editor of the Medical Gazette.

Sir,—In the number of your journal for the 25th May last, you have given a paper (extracted from the *Dublin Journal*) by Dr. Crampton on Pathology, &c. of dislocations of the shoulder-joint, which paper I consider fraught with interest to the surgical profession. That part of it to which I am now going to refer relates to the dislocation forwards, or under the pectoral muscle; and I am of opinion, that the case which I am about to state will be another proof, that this dislocation is frequently of primitive occurrence. Having read with very great care Dr. Crampton's remarks, and being forcibly struck with the case of Hon. Col. Gore related by Dr. C., I determined upon pursuing the same practice in the first dislocation of this nature that might present itself to me; and I certainly had an earlier opportunity afforded me than I could possibly have anticipated, for on the 29th June (not longer than a month after reading Dr. C.'s paper), I was sent for in great haste to R. W., æt. 33, who had got drunk, and fallen on the pavement ; and on my arrival at his house, about an hour after the receipt of the accident, I found him lying in his bed on his left side, with the head of the right humerus dislocated forwards. The head of the bone was not felt but seen distinctly, in its new situation, my patient not being a very stout subject.

I ordered him to be taken out of bed and placed on a chair, and while the spectators were busy chattering, and preparing towels and strength, which they considered indispensable, I was examining carefully the exact state of the joint ; and having made up my mind to try first Dr. C.'s plan as practised upon the Honourable Colonel, I took hold of the patient's wrist with my right hand, while I placed my left, clenched, in the axilla, and having made the slightest possible extension, I suddenly drew the arm across his body, in the direction of the left hip, when I felt the head of the bone glide smoothly into the glenoid cavity. This was attended with so little trouble, that the by-standers were surprised at the easy reduction, and seemed not a little disappointed that their towels and strength should have been disregarded.

I am not able to state in what direction the force was applied that dislocated the bone, for no person was with the man at the time the accident occurred, and he, being quite drunk, knew nothing, of course, about how it happened.

I will only further add, that I think the surgical profession is highly indebted to Dr. Crampton for publishing his pathology of this dislocation ; and for my own part, I

take the present opportunity of tendering him my warmest thanks.

Should you consider these few hurried remarks worthy of a place in your journal they are very much at your service.

I am, Sir, your obedient servant,

DAVID BELL, M. D.

West Tower-Street, Carlisle, August 3d, 1833. [*Medical Gazette.*

DIFFERENCE BETWEEN ACETIC AND FORMIC ACIDS.

M. Dobereiner distinguishes formic from acetic acid, by the property which the former possesses of reducing the oxides of the noble metals in the humid way, the formic becoming acid, if, for example, acetic acid be added to a saturated solution of protonitrate of mercury, proacetate of mercury is formed, and separates in brilliant scales; formic acid on the contrary produces no effect in the solution till heated, then vivid effervescence takes place and metallic mercury is precipitated. A cold saturated solution of acetate of lead is also a good re-agent for formic acid; if the acid either concentrated or dilute, be mixed with it, crystals of formiate of lead are instantly produced in the form of brilliant stars; the experiment may be made in a watch-glass: a drop of concentrated solution of acetate of lead, added to a drop of very weak formic acid, occasions the formation of crystals of formiate of lead; the excess of acetate of lead may be removed by alcohol, the formiate is insoluble in it.—*Brewster's Philosophical Magazine, July* 1833.

CAOUTCHOUC.

Professor Mitchel says that the most perfect of the solvents is the oil of sassafras, as it evaporates entirely and the Caoutchouc recovers all its qualities, whilst all the other solvents cause a greater or less change in its quality.—*Repertory of Inventions, July* 1833.

OSTEO-SARCOMATOUS TUMOR OF THE LOWER JAW—OPERATION—CURE.

Alice Godwyn, aged 26, a healthy looking country-woman, married, was admitted into Faith Ward, under the care of Mr. Lawrence, in the early part of June, with a tumour, situated on the right side of the face partly upon the outward surface of the base of the inferior maxillary bone, and passing deeply beneath the lower margin. The tumor was irregularly oval in shape, its long diameter extending from the angle to the symphysis of the jaw: it appeared firm, and solid in texture, and was moveable upon the parts beneath, except at the angle of the jaw, to which it seemed to be attached: handling occasioned no uneasiness, but she has at times experienced severe lancinating pains in it: the integuments covering it are natural in appearance, except that there were several cicatrices, the result of the local applications which had been made to the tumor. On the inner surface of the lower jaw, near the last molar teeth, was a fistulous aperture, through which a probe passed into the swelling, and from which a fœtid dark-coloured fluid, occasionally escaped. The patient states that the tumor commenced five years ago, in the form of a small knot, which continued slowly and progressively to enlarge, unattended with any particular degree of pain. Two years after its commencement it burst, and discharged a quantity of matter into the mouth, through the opening in the maxillary bone, which we have just mentioned: it subsequenly increased in size, and its growth has latterly been much more rapid, and attended with greater pain. Her health does not appear at all impaired, and during the last nine months she has suckled a child.

22d. To-day the woman was brought into the operating theatre, and Mr. Lawrence proceeded to remove the tumor in the following manner:—An incision was made through the long axes of the tumor, extending from the symphysis to the angle of the jaw: a second incision, commencing from the centre of the first, was carried vertically downwards, to the lower border of the swelling. The integuments were now reflected, forming two flaps, so as to expose the tumor, which was found to be contained in a cyst: the operator then dissected the tumor from the external surface of the jaw, to as great an extent as could be effected by the scalpel, in doing which the facial artery was divided and tied. To permit the attachments of the tumor, below and beneath, to be more freely examined, it was found necessary to slice through and remove the greater portion of it: a large artery was wounded at this part of the operation, but was immediately secured. The remaining part of the tumor was attached to the angle of the jaw, and passed deeply beneath the bone towards the cavity of the mouth: the connexions with the maxilla were separated with the bone forceps, and the tumor, together with the cyst, were dissected from the parts to which they were attached beneath the jaw, except a small portion of the latter, which could not be removed without cutting through the mucous membrane covering the floor of the mouth. The edges of the wound were then brought together, and united by sutures, and a cloth wetted with saturnine wash ordered to be thrown over the parts.

Mr. Lawrence afterwards examined the tumor, which in the greater part of its extent was of a fibrous texture, the remaining part consisting of bone and cartilaginous substance: in the centre was a cavity, which had been opened by the section of the tumor made during the operation, it contained a dark coloured glairy fluid, of a fœtid odour.

Mr. Lawrence in addressing the pupils, related to them the circumstances of the case, and the character of the swelling previous to the operation, which we have already described: he had never, he said, met with a tumor of a kind exactly similar to this, which he considered to be of the nature of osteo-sarcoma: it was certainly not of a malignant nature, and as the small

portion of the cyst would be thrown off by suppurative process, he had no doubt but that complete and permanent recovery would ensue.

23*d*. Has passed a quiet night; wound looking well.

25*th*. The sutures removed, the edges of the incision along the base of the jaw have united by the first intention; there is a healthy discharge from the lower part of the wound.

July 16*th*. The wound has continued to heal without any unfavourable occurrence, and the woman is on the point of being discharged from the hospital.—*Medical Gazette, August* 1833.

CARBONATE OF POTASH FROM GREEN AND DRY PLANTS.

M. Becquerel has made some experiments on the manufacture of potash. The comparative analysis of a great number of ashes has proved, that those of green wood yield a much greater proportion of saline matter, than those of dry wood. This difference is especially striking with the ashes of fern; the ley of the ashes contains a mixture of subcarbonate and sulphate of potash; the proportion of the former varies from 0.45 to 0.65; it this variation which causes the great difference of quality and price in potash of commerce; it becomes therefore very important in the manufacture of potash, to separate the sulphate with which the subcarbonate is mixed. M. Becquerel effected this by concentrating the solution to spec. grav. about 1.4 and allowing it to cool: the greater part of the sulphate of potash crystallizes on cooling and the saline matter which remains in solution contains afterward 0.90 of subcarbonate. M. Becquerel has also ascertained, by his numerous analysis of different kinds of ashes, that those of the lime-burner contain very little sulphate of potash, which is, undoubtly due to the action of the lime upon the sulphate of potash with the assistance of charcoal. This fact, M. Becquerel remarks, may lead to some advantage, by adding lime to the wood, the ashes of which are intended for the manufacture of potash.—*Philosophical Magazine from Journal de Pharmacie, October* 1832.

MR. BROWN ON THE TREATMENT OF BURNS.

The danger arising from burns, whether it is a scald or torrefaction of the part, entirely depends upon their extent, and also in a certain degree, upon the constitution of the patient. If the case shall be that of the whole body being immersed in merely boiling water, and instantly extricated, I think it possible for a recovery to take place; but if its application shall exist for a minute, I am of opinion, from what I have seen, it must terminate speedily in death: but if the immersion shall be in boiling oil, brewer's copper, boiling sea water (as in the making of salt, &c.) then I apprehend, however short their application may be, there is no hope that the poor sufferer can survive a very few hours.

The symptoms which take place in such cases, are an immediate shivering, or rather trembling and shaking of the whole body, attended with a singularly depressed and anxious countenance: oppressed and quick respiration; a rapid, small and what many would deem a weak pulse; excessive pain and anguish—the wretched sufferer presenting altogether rather an appearance of agitation and confusion than stupor or excitement; and after continuing in this state for a very few hours death comes to the relief of the miserable patient. But if the application of those boiling fluids (but more especially boiling water, or those nearly approaching it) is under a minute, and only one third of the surface of the body injured, I should be inclined to give a favourable prognosis; but, on the contrary, if the application of the heated body has been so long as that it must infallibly terminate in superation, then the probability of a fatal termination is much increased, and both the constitution of the patient and the supply of cordials and nourishment, must also be taken into consideration. In cases of torrefaction, which, from their extent and severity must necessarily end in death, the symptoms and prognosis differ. There is a total absence of shivering and shaking; the pulse is neither so rapid, small, or apparently feeble, but rather has more of the appearance of a real inflammatory action; there is frequently considerable stupor, coma, and torpor: and here the patient does not sink so rapidly, but his existence is generally lengthened to twenty-four or thirty-six hours. Like the cases of a burn from liquids, the prognosis must be regulated by the extent and severity of the injury, but more caution is necessary, as all such accidents must be followed by extensive suppuration, and of course the consideration of all concomitant circumstances carefully kept in view. And with regard to the probable result of both these species of injuries, if the patient shall survive the first forty-eight hours, I then consider he has surmounted the danger arising from irritation, &c. and his case remains to be considered as what is likely to follow from an ulcerated surface.

Whatever may be the cause, extent, and severity of the burn, I instantly (if existiug circumstances render it practicable) dress it with a thick-spread pledget of ung: resinosum, having a greater or less proportion of resin in it; and for which purpose I have been in the habit of keeping in the laboratory basilicum of three different proportions of resin. The ointment is spread on any kind of stuff most convenient. This dressing is only allowed to remain on for eight hours, if the burn is severe or approaching to torrefaction; but if it is only to the extent of a scald, then I allow it to remain twelve hours; the length of time, however, is regulated by the absence of pain; for if it returns, the application should be immediately renewed. The

strength of the resinous ointment used, is to be regulated by the severity of the injury: in all cases of mere scalding, the mildest ointment will answer every purpose, but if otherwise, the others may be used accordingly; and in all cases short of torrefaction, it will not be necessary to use the strongest. These dressings are to be gradually reduced in strength, according to existing circumstances: if the injury is a mere scald, the strength of the ointment may be weakened at the third dressing, and by the third day no further dressing will be necessary; but if the scalding has been followed with peeling of the cuticle, then the resinous dressing must be gradually reduced, even below the third proportion of resin, by mixing it with lard or simple cerate, when a cure will be effected in a few days, without pain, cicatrix, or much discoloration; but if the cure is improperly conducted, or, what is extremely common in the general practice of treating burns however slight, ulceration will take place, accompanied with some sloughy, elevated, and reflected edges, and great pain, uneasiness, and irritation. In whatever circumstances of burns these symptoms take place, they cannot be made to heal until they are brought to the state of a clean healthy ulcer; and for this purpose nothing will succeed but mild digestive resinous ointments, always, however, taking the greatest care that these applications shall be only applied to those parts of the ulceration which have the appearances now described, and they must be no longer continued of the same strength after these symptoms have ceased to exist; nay, indeed, the strength of these digestive applications should be as nearly proportioned as possible to the extent of these appearances; for if the change in the ulcer is attempted to be produced too rapidly, or if the strength of the dressing is continued too long, then the greatest pain and irritation follow; and although these symptoms may be relieved by change of dressing and poultices, still a strong tendency to fungous and luxuriant granulation follows, forming one of the most common and troublesome attendants of burns. It frequently happens, too, that these appearances in ulcerated burns occur more in one place than in another: the dressings must then be managed accordingly, far from the improper application at one part, the whole ulcer will be thrown into a state of irritation, the unpleasant symptoms reproduced, and the cure very seriously retarded.

If the application of the heated body should be followed by visications, I never open them, but at the end of three or four days when very unpleasant symptoms have terminated, and the parts underneath may be supposed to have nearly regained their original state, I slightly puncture them with a needle, and repeat the puncturing every day, so as gradually to discharge the whole of the fluid, when the surface underneath will be found perfectly whole.

It must now be observed, that however singularly beneficial resinous dressings may be in the treatment of burns, still their application in the most severe, extensive, and of course, most dangerous cases cannot be obtained; but in such situations, the most speedy and effectual way is to put the whole body, or the whole of the parts injured, into a warm bath, or to keep it moistened with cloths dipped constantly in warm water, which will be required to be heated at least from 106° to 110°, until proper dressings can be procured; and for this purpose a resinous dressing may be readily obtained by melting a sufficient quantity of oil, resin, and tallow or lard together into any convenient vessel, when the whole injured parts may be easily smeared over with it by using a bunch of feathers, and this renewed as often as the pain returns, by which means the danger of immediate death may be avoided, the misery of the poor patient much mitigated, and perhaps his life preserved, more especially if the injury is merely scalding; but even although the burn is of a nature that allows little or no hope of saving the life of the patient, still much is gained if we can place him in comparative ease and diminished misery; nay, if by such means we can keep him alive for 24 or 48 hours, it is obvious we give him the only chance of final recovery.

The opinions formed ef the effects produced upon the system in general, and the mode of treatment, are nearly as discordant as the local practice, the antiphlogistic plan being strongly recommended by some, while the stimulating and strengthening is regularly enforced by others. The symptoms, of rigours, convulsions, rapid breathing, and frequent pulse, being ascribed to the extravasation of fluid on the chest from sympathy with the surface; while the stupor, coma, &c. are ascribed to its effect upon the brain. I apprehend however, it is quite superfluous to call in any other aid to account for the phenomena now mentioned, but the excitement produced in the brain and nervous system from the pain and irritation produced by the burn. Still the effects of mere scalding and those of severe cases of torrefaction, are widely different, for it is only in the last instance, that stupor and coma occur, the symptoms of convulsion and rigor are wanting, while the pulse is not so rapid, and has a fuller throb, which, with the other symptoms of torpor, are to be ascribed to the near destruction of life by the extensive destruction of parts, together with the effects of exposure to smoke and flame. In treating these two species of burns constitutionally, wherever the injury has a more or less extensive scalding, without including nearly the whole of the body, I never hesitated to bleed to an extent proportioned to the injury and the symptoms produced, which together with a large dose of laudanum, and the application of the resinous ointment, gave instant relief from all the symptoms, and the patient steadily recovered, without any sloughing or ulceration, but where the immersion of the body

was complete, and of some continuance, of which I have seen two or three instances occurring in sea water, they proved fatal in a very few hours. These cases happened before I employed my present practice; it is however, very probable that they would have had the same termination, both from their extent and the difficulty of procuring the necessary applications. I had no hesitation in using the lancet freely in the cases of scalding, because it was evident no real debility could exist; and such a means was also affording the only chance of removing the excitement and relieving the oppressed breathing, whether this was owing, either to the action of the heart not being able to overcome the accumulation of blood in the chest from the spasm, or want of regular action in the vessels of the surface—a direct want of action in the heart itself or even an extravasation of fluid in the chest. In the cases of extensive burns from flaming bodies, I have never used the lancet or opiates, because there was no excitement to subdue, but trusted to leeches and other local applications, with laxatives, to relieve the stupor and coma, and to the means for supporting the strength of the general habits, looking forward to an extensive suppuration.—*Medical Gazette, August*, 1833.

DISCHARGE OF FATTY MATTERS FROM THE ALIMENTARY CANAL AND URINARY ORGANS.

There is another still more curious sort of discharge from the alimentary canal, and that is a discharge of fat both in a liquid and solid state. Sometimes this is discharged with diarrhœa, and sometimes without it. Occasionally the lumps come away with great pain; in other cases, it is oil that comes away, just of the colour of melted butter.

My attention has been attracted to it for having had some cases of this description under my own care, I was led to read upon the subject, and my curiosity was excited. I find that Sauvages whom I mentioned as having been the first framer of a system of nosology, has mentioned a diarrhœa adiposa; and he says that he has known Seneka, after hard riding, pour forth adipose matter. He says that it was apparently absorbed by the blood vessels where being mixed with the blood, it rendered it viscid; it then partly flowed into the intestinal canal and there covered the fæces, as it were, with butter. That is his description of it. I find, however, several very satisfactory cases of this disease. There is one of a woman who discharged every day for fourteen months, a large quantity of yellow fat, which lay on the fæces like melted butter. Sufficient was collected to fill a number of vessels, and when thrown into the fire it burned with a bright flame, and after the fæces had cooled, it concreted of the consistence of absolute fat. But what was singular, there was neither tenesmus, emaciation, nor colliquative fever; and sixteen years afterwards she was in excellent health. This case is related by Tulpius; but he says, "What is this to an old woman who, in her 70th year, voided precisely similar fat from the intestines and bladder?" These are singular cases, but I believe them. Tulpius adds, that towards the close of the disease in the last case, the patient became feverish, and in consequence emaciated, and that death found her little else than a parched and juiceless corpse. I find another case where a patient for some years had suffered pain in the stomach; nothing relieved her, and she became worse, when one day she discharged about three pounds of fat, and from that moment speedily recovered. I find another case where a patient discharged from his bowels for two years a large quantity of fatty substance; he grew thin and weak, then died. In the *Edinburgh Medical Essays* you will find a case described which occurred to a weaver, 40 years of age, who, in attempting to take up a very heavy vessel felt his back bone crack, which was attended with violent pain; he fell to the ground, being unable to stand. The pain long continued very severe; he fancied that the bone was dislocated inwards; and to reduce it, made one of his neighbours pull his belly backwards; while another, getting on his shoulders, pressed them downwards and forwards, by which he thought his loins were more straightened than formerly, and he had less pain. Some days after this, a country bone-setter undertook to put all the bones to right, making one man pull at his shoulders and the other at his legs, in a contrary direction. By this extension he was put to most exquisite torture, and all his complaints were increased. Three months after he could just creep enough to crawl out of doors, and then observed amongst his excrements a whitish substance, about the bulk of a large walnut; it was like tallow, or hardened marrow, composed of small globules. It melted on the application of heat. During several days after, he observed several pieces of the same sort of substance, of the size of kidney beans or peas come away among his fæces. He thought all those lesser pieces, if they had been put together, would have been equal to the large piece he passed first.

About a year and a half ago I had a patient, in St. Thomas's Hospital, with diabetes, who had wasted away. For some reasons or other I happened to see his motions, and there was lying upon the fæces a large quantity of matter, like soft fat, which he said, was quite fluid when discharged. I looked at the fæces regularly every day, and there was always one or two tablespoonfuls of this fatty matter. I took a part of it to Dr. Prout and some to Mr. Faraday, and it was seen by some of the first chemists in London, who found it to be similar to fat. The question asked was, whether the patient had taken castor oil?—but he had taken nothing of the kind—nothing oleagenous. The fat run away in this liquid form with his motions, or after them, and when he had diarrhœa it came at the top. It was voided like oil, but presently

concreted. His wife told me that this was the first symptom of his complaint. He had formerly discharged an immense quantity of it, so that full one-half his motions were fat. What was curious, the disease ceased while he was under my care. He died of diabetes and phthisis. I opened him, but there was nothing particular to be found there. The intestines looked greasy enough—they were like paper steeped in oil; but that was all. No oil was found in the alimentary canal. Dr. Prout tells me, that in cases of this kind which have come to his knowledge, there was considerable disease of the kidney. Mr. Pearson of Clapham, shewed me a quantity of fat which came from an old woman, and said he could furnish me with any quantity. He understood from her that it was in the urine; but he mentioned the case of a lady whom he knew very well (he did not attend upon her, but he had been in company with her), who discharged fat both in the urine and fæces. He had been particular to have the urine by itself, and also to ascertain whether it came from the bowels or not; and he clearly ascertained that it came from both. In this case of his, and in my case too, I think the motions were very white: they seemed to be of a viscid nature. It is a curious disease. Mr. Howship mentions a case, in his book on morbid anatomy, of a lady who discharged a great quantity of this, and she was cured by giving her a pint of sweet oil. That was an odd remedy. He says she took a pint of sweet oil, and was well from that day, though she had long been previously ill. However, as facts are stubborn things, I gave the man under my care four ounces of olive oil, and the voiding of fat greatly diminished from that time, and soon ceased: whether the circumstance was accidental or not I cannot tell. You will find a case mentioned in Hufeland's Journal for 1826, of a quantity of thick oily matter being vomited: there was extreme emaciation, and a rapid discharge of thick oily matter from the stomach. I suppose that you are aware that the spermaceti whale is liable to this disease: that what is called ambergris is fat which is collected in the intestines of spermaceti whales? As much as 182 lbs. have been found in or discharged from, the intestines of that animal; and it is said that it has never been found higher than six or seven feet above the anus. This fat is very often discharged, and found upon the shore; but occasionally it accumulates, and the animal dies either from accumulation or from disease forming in the intestine; I do not know which.—*Dr. Elliotson in Medical Gazette, August* 1833.

AFFLICTING CASE OF HYDROPHOBIA.

The following distressing details of a case of hydrophobia are taken from the *Sentinelle du Jura* :—

The victim was a young woman of 28, the mother of four children of very tender age. In August, 1832, a dog, under circumstances which gave rise to suspicions as to its real state, bit a cow belonging to the unfortunate woman, which in a few days after refused to take any food and altogether abstained from drinking, except when greatly pressed by thirst. The poor animal would then try to drink, but the throat becoming contracted, refused to admit any liquid. The imprudent woman thinking that the reason of this difficulty in swallowing was caused by some extraneous substance sticking in the throat, several times plunged her arm into the mouth of the cow, and was engaged in endeavouring to make the discovery the greater part of the day. After many useless attempts she received a scratch on the hand; however, she did not attach any importance to it, although the police with commendable vigilance had ordered the cow to be destroyed, it having been observed to be very fierce.

The year passed without any thing giving cause for suspicion of danger from the scratch, when, all at once, the images of the two diseased animals were constantly presenting themselves to the mind of the poor woman, and tormented her unceasingly. When she first experienced this vision she felt a little pain in her hand, then in the arm very shortly after she was seized with spasms, contraction of the throat, and convulsions; difficulty in swallowing and a horror of all kinds of beverage, against which sedatives, antidotes, and narcotics were all perfectly powerless. The disease first manifested itself on Thursday, the 29th of August, and by the Saturday the poor sufferer was in a perfect state of madness, and those before most endeared to her were not safe in her presence. She sent away her medical attendant and confessor, lest she should not be able to resist the desire of biting them. The most heart-rending scenes presented themselves in the unfortunate family, during the progress of the dreadful malady. The last lucid moments which appeared in the short intervals between the paroxysms, rendered still more distressing the premature end of a wife and mother, who was about to be torn from all that rendered life dear to her. In a moment of calm, shortly before her death, the unhappy woman got up and selected some linen, in which she expressed her desire to be buried, then laid herself down upon the bed, and instantly died."—*Globe Sept.* 28.

TEMPORARY POISONING—OIL OF TAR.

One morning in the month of June 1832 between the hours of ten and eleven, John Ballard, ætat. 32, a cooper on board his Majesty's ship *Victory* at this port, being in the gun room with the steward who was refilling the lamps; by way of a "lark" as he termed it, thought he would trick his companion by drinking, what he considered to be, his complement of rum, which happened to be standing by him in a large glass vessel. Unfortunately however, instead of rum it was oil of tar of which he tossed off the greater portion. He consi-

dered he had not taken much less than a gill in quantity: not liking to tell of the blunder he had committed lest he should be laughed at by his mess-mates, he continued his employ for several hours, and in the afternoon went on shore to work at Gosport. Towards the evening however, feeling himself extremely ill, he left his work, crossed over to Portsmouth, and went to the residence of his wife at South Sea, which he reached with considerable difficulty, being obliged in crossing the common, to lie down and rest himself several times.

We saw him about six o'clock (more than seven hours after the accident had occurred) and found him in a state of great exhaustion, continually vomiting, and complaining of excessive pains in his bowels and loins, *but without the slighest pain in his head or beating of the temporal arteries,* which was stated to be so prominent in the case of Captain Burdett, nor had he felt the one or the other from the time of swallowing the oil, the fluid ejected from the stomach smelt strongly of tar, so much so indeed, that the odour was readily to be distinguished even before entering the room. Half a drachm of pulv. ipecac. was given him in water, which in about ten minutes as it were by one powerful effort relieved the stomach of a considerable portion of its deleterious contents, though it might have been thought that after so long an interval, very little could have remained there. He was bled ℥xxx. and tooks ½ oz. of castor oil, in a short time every symptom was considerably mitigated, a six-ounce cathartic mixture was left him, with directions to take a quarter part of it every hour till it acted every freely.

We saw him again at nine. He had then had several profuse evacuations, which, like the ejection from the stomach appeared to contain quantities of the oil in question, whilst his urine was very high coloured and strongly impregnated with the oil. A blister was applied over the region of the stomach; and he was directed to continue the cathartic mixture throughout the night with hot fomentations to the bowels and loins. On the following morning he was so much better that he went on board to do his duty, not feeling however quite so strong as he had previously considered himself to be, he was obliged to return home in the course of the day, when an additional ounce of castor oil, and a saline mixture to relieve the ardor urinæ, of which he sadly complained, was all that proved to be necessary for his relief, and on the following morning be was able to return to his usual duties on board.—*Messrs. Slight of Portsmouth in Lancet, August* 1833.

MR. MORGAN'S CASE OF THORACIC HERNIA.

James Tarr, ætat: 54, a mason by trade, was admitted at the Bristol Infirmary, under the care of Mr. Richard Smith, July 20th, with a fractured leg, occasioned by a heavy stone falling on the limb; the bones being comminuted and the soft parts severely bruised. Considerable swelling, with vesication, followed; unattended, however, by much constitutional disturbance. This had in a great measure subsided, and the patient appeared to be doing very well until the seventh day after the accident, when delirium came on, succeeded by great prostation of the vital powers, and he died on the following day. The symptoms, during the last few hours of life, bore a striking resemblance to those of the concluding stage of enteritis; the abdomen being tympanitic and tense; the general surface of the body bedewed with a copious cold perspiration; the extremities cold and livid; the pulse very frequent, small, and feeble; and the respiration frequent and laborious. The delirium which ushered in this change was unattended by any sign of arterial excitement about the head and was not of a violent character; it continued in a less degree nearly to the last. There was no evidence of any inflammatory affection either in the chest or abdomen, except the resemblance of the latter symptoms to those of a person dying from enteritis, as before mentioned; and the state of the pulse, skin, tongue, &c. with the aspect and manner of the patient, all indicated from the first great prostation. The case, therefore had much the character of that derangement of the nervous system, with the going away of the powers of life, which is sometimes observed after serious injuries; but here the shock of the accident had previously scarcely been felt, and the patient appeared to be doing as well as any other with an ordinary fracture. A soothing and moderately antiphlogistic treatment was employed for the injury in the first instance; and when this unfortunate change took place, stimulants were obviously called for, and freely administered. On examination after death, a thoracic hernia of remarkable extent was discovered, comprising the whole of the stomach, nine feet of the small intestines, and four feet of the colon, with the omentum, which had passed into the left side of the chest through an aperture in the diaphragm. The left lung was lying close to the spine, compressed into a bulk not larger than the spleen, and the heart was pushed over to the right of the mediastinum. The right lung also was unusually small and dense. The perforation in the diaphragm was of a circular form, measuring three inches and a half in diameter, and was situated in front and to the left of the œsophageal opening, but quite distinct from it: its edges were smooth and elevated, and covered by a serous membrane; evidently showing that it was not of recent origin. The remainder of the muscle on this side was pale and attenuated, but not softened, and that at the base of the right side of the chest was perfectly healthy. The œsophagus entered the abdomen at the usual spot, and immediately turned back upon itself to terminate at the cardiac orifice of the stomach, which lay within the chest at the margin of the lesion in the diaphragm. The stomach was much distended by flatus,

and lay behind the other viscera with its greater arch upper-most towards the neck, and the pyloric extremity, like the cardiac, close to the opening in the diaphragm. The duodenum proceeded from this point towards Glisson's capsule, and took its usual course. The hernial portion of the small intestines was the lower part of the ilium, terminating six inches from the cœcum: and that of the large intestines was the arch of the colon, with the loose portion on either side of it. The bowels, like the stomach, were much inflated, and with it completely filled the left side of the chest, which was evidently enlarged by their pressure.

Not the slightest strangulation existed, and the hand could be passed with ease, between the displaced viscera and the sides of the opening. Some old and firm adhesions connected the omentum to the pleura near the clavicle, on dividing which the whole of the protruded parts were readily withdrawn from the chest. With the exception of a little inflammatory blush on the colon, no other morbid appearances were discovered, and the rest of the thoracic and abdominal viscera were as usual in all respects. The corpse was muscular and robust.

The curious and interesting feature of this case is the length of time that the hernia had probably existed. The examination clearly proved that its date was long antecedent to the recent accident; besides which, the fracture of the leg was occasioned by a local cause which affected no other part. On enquiring into the man's former history, his friends stated, that thirty-eight years ago he had received a violent blow on the back by the fall of a tree, which, they say, pressed out the contents of his stomach through the mouth: since then he had never enjoyed good health, and often complained of asthmatic dyspnœa, and was subject to dyspepsia and constipated bowels. It did not appear, however, that he suffered much inconvenience, as he was always able to follow his employment.—*Medical Gazette, Aug.* 1833.

ANEURISM OF THE BASILAR ARTERY.

John Beard, aged 34, a stout healthy man, had served seventeen years in the army, which he had left about twelve months. He had enjoyed good health until within the last few months, during which time he had suffered frequently from head-achs, which were sometimes very violent but never so severe as to prevent him from performing the ordinary duties of a labourer. When actively employed he suffered least; but on Sundays, and at other times when unoccupied, his spirits were extremely depressed, and he complained more of the pain in the head. He frequently experienced great weariness of the limbs, on which occasion he went to sleep.

On the 15th December, 1831, after passing a more comfortable day than for some time previous, he took his supper early and retired to rest, expressing great pleasure at finding himself better than usual. In about an hour after he went to bed his wife was alarmed by hearing him make a peculiar noise in breathing. On going to him, he informed her that he awoke suddenly, supposing that he had been violently struck at the back of the neck. He could scarcely breathe, and was confident that he was going to die. He almost immediately became insensible. Mr. Jenning saw him about twelve o'clock, and was struck with the peculiar character of the respiration, which consisted of alternate violent spasmodic inspiration and slight groans, but without stertor. Inspiration had the character of a violent sob; expiration was attended with a long continued groan. All the limbs were completely powerless, and void of motion; when lifted from the bed, they fell as though dead, and appeared quite insensible when pinched or pricked. Common sensation and motion appeared, however to exist in the face; for, on tickling the cheek with a feather, the muscles contracted, and on introducing fluids into the mouth, the lips and cheeks moved, but he could not swallow. The pupils were not unnaturally dilated, and contracted on the application of light. When spoken to very loudly, and requested to put out his tongue, he made an effort to do so, but did not get it beyond his lips. He gave no other indication of consciousness. He was in a profuse perspiration. As he lay, the head was evidently drawn backwards, arching the neck considerably, and when the neck was strightened, it directly returned into the same position when left to itself. The pulse was 80, small and rather hard.

Mr. Jennings immediately took 50 ounces of blood from the arm, the evident effect of which was to relieve him considerably. He opened his eyes, spoke, said the back of his head and neck were in pain, breathed more calmly, put out his tongue, and moved his limbs. The pulse rose to 90 and was soft. In half an hour after the bleeding, he endeavoured to get out of bed; but an effort to vomit coming on, he fell backwards insensible, and again entirely lost the power of moving his limbs. The breathing returned to its former state, and gradually became more difficult, with occasional long intervals between each respiration. He soon became quite unconscious of any sound, however loud; and respiration became slower and more laborious, until about seven o'clock when he died.

Inspection of the body seven hours after death was performed. The brain and spinal chord were removed together from the body, by first sawing away the arches of the vertebræ, and then opening the cranium. A large quantity of serous fluid was effused at the basis of the cranium, and into the spinal canal, in its whole length. A large coagulum of blood was found covering the medulla oblongata, and just extending to the tuber annulare, but not at all covering it. On carefully opening this clot a small aneurism of the basilar

artery was discovered. This aneurism, which was about the size of a pea, had given way, and been the source from which the hemorrhage had taken place. The clot involved at their origins the sixth, seventh, eight, and ninth pair of nerves, and of course, must have produced a great presure upon them, and also upon the medulla oblongata. A slight thin coagulum extended round the spinal chord: in some parts presented more intense red patches. There were also in one or two places small clots on the surface of the cerebellum.

In the dissection of the brain, the whole of its substance was found remarkably injected. In many places the medullary matter presented exactly the appearance of a white surface sprinkled over with red sand; or, as M. Lallemand has named it, the injection sablée. No other morbid appearance was discovered.—*Edinburgh Medical and Surgical Review.*

SINGULAR CASE.—ANEURISM OF THE ARCH OF AORTA, COMMUNICATING WITH THE VENA CAVA SUPERIOR.

William Brown, a coachman, aged 41, admitted into John Ward's July 28th, presented the following appearances:—Countenance œdematous and purple; eyelids tumid, with slight serous effusion under the conjunctiva; tongue clean and moist; pulse 100; œdema of the right upper extremity and of the trunk, as far as the base of the chest, principally on the right side; clusters of minute veins, almost varicose, are scattered over the chest; and on the back, in addition, are found several large cutaneous veins. Has no pain in the head, but towards night feels dizzy and confused, has a cough, with tough expectoration, dyspnœa, and palpitation, particularly on motion, although not occurring in paroxysms, sensation of a weight on the shoulders; some fulness is perceptible in the right hypogastrium, which is painful on pressure; appetite good; slight thirst; bowels open from medicine; urine scanty, acid, but not albuminous. As long as he can remember he has had cough, with dyspnœa and palpitation; he has lived intemperately, and been much exposed to wet and cold; has felt less vigorous during the past spring. Three weeks ago he first observed his face purple and swollen; for a few days previous he had pains in the neck and shoulders, which ceased on the appearance of the swelling; the integuments of the chest then became œdematous, and a week after the arm was similarly affected, leeches were applied to the axilla and he has taken elaterium and diuretics with relief. Has become feeble and his legs have wasted since his illness. Auscultation.—The heart is heard over a greater extent than natural above the right mamma, without excess of impulse; there is a distinct bruissement opposite the origin of the aorta, which is still more evident at the top of the sternum, and beneath the right clavicle; the sound is like the vibration of a string, and is heard though in a less degree over the right carotid: some crepitation on both sides of the chest behind heard most distinctly at upper part; slight rhonchus. One scruple of the nitrate of potass in peppermint-water, cupping beneath the shoulder blade to eight ounces. 11. Feels relieved from the cupping; has less weight and stiffness about the shoulders; omit the nitrate of potass. The compound elaterium pill is ordered. 13. Was purged by the pills and vomited; has rather less swelling about the neck.

Auscultation: some perceptible impulse to the touch between the right clavicle and mamma; chest dull on percussion beneath the right; and sonorous beneath the left, clavicles. Saline effervescing draughts.

17. Had great difficulty of breathing last night; was confused in his answers; the face and neck, and particularly the eyelids, are more swollen; cough troublesome, with want of power to expectorate; pulse 100, and rather hard. Twelve leeches beneath the right clavicle.

19. The breathing was much relieved by the leeches, but was again difficult towards night; œdema has extended to the scrotum and ancles. Twelve leeches.

22. Breathing again oppressed at night, with some delirium; expectoration tinged with blood. Repeat the leeches.

25. Was again relieved by the leeches. Complains of stupor and want of consciousness, with tightness around the throat, and wheezing respiration.

Cupping to six ounces behind the ears. Peppermint-water with one drachm of juniper, and half a drachm of tincture of scilla three times a day.

29. Œdema extended to the left arm; no other change. Omit the peppermint water; ordered compound decoction of juniper.

August 1*st*. Countenance swollen from œdema to an intense degree; eyelids puffed and semi-transparent; the margin of the temporal fossa is marked by a ridge of elevated skin; breathing much oppressed. Cupping beneath the clavicle to eight ounces.

4. During the last three days the delirium has been almost constant; had to-day a severe fit of dyspnœa, followed by profuse perspiration; marked subsistence of the tumefaction over the temples and of the eyelids. Gradually sunk and died in the evening soon after eight o'clock.

Autopsy twelve hours after death.

The pleura was adherent to the ribs on both sides. Corresponding to the three upper ribs, on the right side, was a tumour as large as the fist connected with the lungs on either side, and with the vena cava, which was behind it on the right. This was an aneurism of the aorta, commencing gradually with the pericardium, and terminating a little before the origin of the innominata; it contained coagulated blood without any separation of fibrin or disposition of layers. The aneurismal sac was divided into two parts by a ridge, which gave the artery the appearance of terminating at that line; the internal lining,

however seemed to be continuous over it; yet from the friable state in which it was, it could not be raised or reflected. The right side of the artery was principally affected. The vena cava superior contained a coagulum of blood; and about two inches above its entrance into the auricle was found a round opening, communicating with the aneurismal sac, rather less in size than a six-pence; the edges of this aperture were smooth; the sac was thin at this part, and a little below the opening it was semi-transparent. The heart was large, from dilatation of the ventricles, with no increase in the thickness of its walls; the valves were in their natural state. The lung crepitated on pressure in every part; the pleura on the lower half of the right side, and that corresponding to the diaphragm, was thickened to the extent of a quarter of an inch, and was composed of five layers indicated by white striæ. The liver was firm and rather small; the kidneys and other viscera were healthy.

This examination excited great interest amongst the professors and other medical gentlemen who witnessed it. Although aneurisms of the arch of the aorta are known to terminate by bursting into the cavity of the chest, or into the pericardium, and sometimes by effusion into the trachea or bronchiæ, or even into the œsophagus; and there have been instances where the aneurismal tumour having become attached to the pulmonary artery or the right auricle, death has ensued from a communication between them. Yet the appearances in this case presented a novelty in aneurismal varieties, which was acknowledged by Mr. Langstaff and several other anatomists, to be heretofore unprecedented in their pathological investigations.—*Lancet, Aug.* 1833.

PREPARATIONS OF ARSENIC EMPLOYED BY M. DUPUYTREN IN THE TREATMEMT OF MALIGNANT ULCERS.

The arsenical preparations in common use act as escharotics, and often leave behind them deformed cicatrices. M. Dupuytren believes that he is able to obviate these inconveniences by a combination of calomel and arsenic, in proportions different from those usually adopted. His formula is the following:—

R. white arsenic, or arsenious acid, 4 parts.
Calomel in powder, 96 ditto.
J. H.

The arsenic may occasionally be increased to 5 or 6 parts in the 100. The ulcerations are well cleaned with poultices in the first place; then, with a little piece of charpie dipped in the powder a layer is put on, not exceeding a millimetre in thickness. The whole of the ulcer is covered, if it be but moderately large; but if considerable, it must be only half a quarter covered, according to its extent, taking care to apply the remedy on successive occasions to different parts of the sore.

M. Dupuytren also employs a paste, composed of a solution of arsenious acid in distilled water with calomel added, and sufficient of powdered gum to give it the consistence of a paste. The proportion of arsenic in the paste is greater than that in the powder; being 6, 8, 10, or 12 hundredths of the acid to 94, 92, 90, or 88 hundredths of the calomel respectively. It is applied with the same precautions as the powder.

The application of both the paste and powder produces, in the first instance, pain and inflammation; but these effects subside and the remedy may be repeated eight or ten days after. Five or six applications generally cure an ulcerated surface. No eschar is formed during the process, the surface is merely modified without being cauterized, and in this consists the superiority of this method of treatment over that of Frêre Côme and Rousselot.—*Gaz. des. Hop.—Medical Gazette, Aug.* 1833.

LITHOTOMY.

July 6. William Pentwood, aged 40, a farmer, with a florid complexion, was admitted into the hospital to be relieved from a calculus which he stated had been a source of pain and uneasiness for four years past. This case was at first intended to have been placed in the hands of Baron Heurteloup for the lithotriptic operation; but in consequence of the stone having been in a kind of pouch near the neck of the bladder it was deemed unfavourable, and the lateral operation was decided upon which Mr. Earle performed to-day. There was some difficulty in extracting the stone occasioned by its size and shape, being a flattened oval nearly as large as a crown piece, and weighing between three and four ounces. The operation lasted eight minutes. July 9. Doing well; not a bad symptom.

LITHOTRIPSY.

Tuesday, June 25. Baron Heurteloup again performed this operation on Thomas Woodbridge, when several pieces of stone were crushed. Several fragments, together with a quantity of pulverised calculi were voided very shortly afterwards. The Baron remarked, that he did not expect to be obliged to operate again on this patient. The poor fellow is highly delighted at the success which has attended the proceeding, and says he is now quite free from the unpleasant symptoms by which he was formerly harassed.

Monday, July 1. Thomas Woodbridge was sounded again to-day previous to his dismissal from the hospital, when two or three small fragments were discovered and easily broken down, the remains of which the Baron said the patient would soon void and then pronounced him cured. He appears in excellent health, and states that he has not experienced any severity of pain since the first performance of the operation. He says "that he is as well as ever he was in his life," and is anxious to resume his occupation.

The other patient, Thomas Reese, has not again undergone the operation in consequence of the state of his health.—*Lancet, August* 1833.

ON GONORRHŒAL OPHTHALMIA.—BY BARON DUPUYTREN.

This severe affection most frequently results from a direct inoculation by means of the fingers applied to the eye, when soiled by the mucus of the urethra.

Case I. *Gonorrhœal Ophthalmia of ten days' duration—Employment of Insufflation of Calomel—Restoration of the left eye.*

L——, aged 30, a very fat little *marchandé* enjoying good health, who menstruated at 14, and had in very short time six children, none of whom she suckled—had suffered much from leucorhœa, and been much exposed to the weather This woman had had several attacks of discharge from the vagina. She states that from the 18th to 20th of January, the cold air greatly incommoded her eyes, and that they were inflamed. On the evening of the 20th, the right eye became the seat of acute pain, as if filled with sand; she could not sleep, and next morning the eyelids were so much swollen, that they could not be separated. She was ordered cataplasms, the hip-bath, and a lotion; but without benefit. On the 22d, a large blister to the arm. On the 24th, the left eye similarly affected. Same plan of treatment pursued till February 2d when she was brought to the Hôtel Dieu. The eyelids were then much swollen, the conjunctiva forming a projection of a deep red colour, very painful, and with a greenish, puriform, very offensive discharge. The cornea could not be seen, the patient could not distinguish any object, and had constant deep-seated shooting pains of both eyes, with head-ache, anorexia, and fever. She had a very abundant discharge from urethra and vagina, regarding the origin of which she would give no information, but the appearance of which spoke for itself: and in these cases the answers of the patients add little to the conviction of the practitioner.

In the evening the insufflation of prepared calomel between the lids was commenced, and a drop of laudanum instilled into each eye. The parts were washed carefully with plain water, and the eyes protected by a bandage. She had a better night.

Next day the same means were continued, the insufflation being performed night and morning with the greatest care. The barrel of a quill or a small glass tube was made use of, into which a little powdered calomel was introduced, and then the eyelids being held apart as much as possible, the breath was applied at the other end of the tube and the powder blown over the whole of the diseased surface. In such cases the movement of the eyelids and the tears, which flow in abundance, carry the remedy into every fold of the conjunctiva.

Under the use of these remedies the improvement was rapid, the purulent discharge diminished, and the pains became much less acute. Nevertheless the tumefaction of the conjunctiva had not diminished sufficiently to admit of the cornea being seen, so that it was impossible to say as yet, what the termination of the case might be. Neither must it be forgot that disease had existed more than ten days before the patient came to the hospital. It is not improbable therefore, that ulceration of the cornea may take place leading to the loss of sight.

At the end of fifteen days the left eye had regained its functions.

Case II.—*Gonorrhœal Ophthalmia—Early adoption of the treatment—Speedy recovery.*

A woman about 25 years of age, came a month before the preceding, to the Hôtel Dieu, to be treated for gonorrhœal ophthalmia, of the right eye. A green coloured pus bathed the lids, and the eye could not be opened without great difficulty. The conjuntiva was much swollen, and the pain very acute. The insufflation of calomel and the use of the laudanum were begun five days after the onset of the disease; a sensible improvement was remarked sometime after the commencement of the treatment; by degrees all the symptoms disappeared and in three weeks she was quite well.

Gonorrhœal ophthalmia is frequently met with in children, and it is then generally called puriform, without any particular reference to its cause. It depends, in new-born infants, on direct inoculation which has taken place during parturition. It is always severe and often leads to the loss of the eye. The treatment ought to be the same as for adults, and much care is required and much perseverance, because the pain produces a spasmodic contraction of the orbicular muscles, so that it is very difficult to introduce the remedies effectually.—*Medical Gazette, August* 1833.

ARTIFICIAL ANUS FROM SLOUGHING—SUCCESSFULLY TREATED.

George Jones, æt: 35, who had for several years been the subject of femoral rupture, on the morning of August 10th went to his employment without putting on his truss. Whilst making some unusual exertion, the hernia suddenly came down, larger in size than it had hitherto appeared; its descent being followed by vomiting, severe pain in the abdomen, and in the hernial swelling. Having failed in reducing the hernia by the means he had usually resorted to, he returned to his house, and applied for his assistance to a practitioner in his neighbourhood. The symptoms continued with great severity during that and the two following days, no other measures being had recourse to for his relief than the frequent administration of purgative medicine and enemata; but the former was rejected by the stomach as soon as swallowed, and the latter returned without procuring any evacuations. On the evening of the third day from the accession of the symptoms, he experienced a sensation as though something had burst

within the tumour, which however did not become altered in size ; almost immediately after this the pain in the belly subsided, the retching ceased and copious evacuations from the bowels took place. Two days afterwards I was requested to visit him ; there was then in the upper and inner part of the right thigh, a large fluctuating swelling, the integument covering it being inflammed, and having a slough the size of a crown piece, occupying the centre. On dividing the slough about half a pint of dark-coloured matter, having a fœtid odour, escaped. The man being then quite free from pain or tenderness in the abdomen, and without any particular disturbance of bodily health, was merely desired to remain in bed, and to have poultices applied to the wound. The discharge of fœtid puriform matter continued during three or four days, until the separation of the slough, when a tolerably healthy looking surface was exposed. A quantity of fæcal matter now passed through the wound, making it necessary to change the poultices rather frequently ; stools however, were freely avoided by the natural passage. He was directed to retain the recumbent posture, to keep the bowels open with castor oil, and to restrict himself to the use of a light farinaceous diet, At the expiration of a month, the wound was nearly filled up by granulations, and the quantity of fæces escaping through it considerably diminished. A compress of lint was now lightly confined over the opening by adhesive strapping ; but this required to be removed several times in the day to permit the discharge of fæcal matter. The pressure was gradually increased, and the wound lessened in size until in about three months a mere pin-hole aperture remained, through which a slight quantity of fæces was occasionally discharged; but in two or three weeks this closed, and a sound cicatrice remained.

As free passage of the fæces by the rectum was established directly after the cessation of the symptoms of strangulation and continued through the entire period of recovery, it is probable that a portion only of the circumference of the gut was included within the stricture, or that a portion of the mortification was confined within a very circumscribed limit, so that the intestine on the separation of the slough, and consequent diminution of its bulk, receded within the abdomen, leaving the aperture at the mouth of the sac. In either case no material interruption of the continuity of the canal would be occasioned ; and the artificial anus would readily admit of cure by natural processes.—*Medical Gazette, August* 1833.

GASTRO-INTESTINAL CONCRETIONS.

Occasionally very hard concretions are found, which are nothing more than hardened fæces, and they are called scybalœ ; but occasionally these things consist of articles which have been swallowed. I saw a man who had swallowed nineteen clapsed knives. He was not believed for some time, but he assured me he had swallowed them, and to convince me, he took one of the same size out of his pocket as those he had already swallowed, and put it down his throat. I was frightened and begged he would bring it up, but it was too far gone. Some persons believed him and others did not ; but at last we could feel them sticking in the abdomen, and ultimately they could be felt, I understand, in the rectum. He discharged fæces, containing a large quantity of iron blackened ; and at last he died in the most horrid torments, the knives cutting his intestines to pieces. The fastening of the knives, as solution went on, of course became less and less secure, the handles separated, and the blades were let loose.

After death, a great quantity of knives were found in his abdomen, some having run two or three folds of the intestines, It was a frightful sight. Considerable portions of the knives were discharged during life ; and those together with what were found after death, are preserved at Guy's Hospital. The case is described by Dr. Marcet in the volumes of the Medico-Chirurgical Transactions.

When a person has taken a great quantity of chalk mixture, and even magnesia, concretions have sometimes been formed. There is a preparation in the Museum at St. Thomas's, where the intestines of a child are completely blocked up with magnesia : it has the appearance of hard mortar regularly cemented, and is said to be magnesia. It is therefore necessary to be on your guard, when you are exhibiting chalk, or magnesia, not to give it too long without ordering a purgative, so as to carry it away. There is a case on record of a person who had taken magnesia a long time, and sufferred a great deal, and then suddenly discharged a large quantity of powder of magnesia from the intestines. Sometimes it is a fact that from magnesia or chalk the intestines become completely blocked up. The carbonate of iron will have the same effect. It is necessary when you are giving the medicine in any quantity, to see that the bowels are regularly opened. You may give an immense quantity if you attend to that point. I related a case where a man took nearly two pounds of it every day for some days, when labouring under tetanus (of which he got well by-the-by), and he regularly discharged large lumps of carbonate of iron : they regularly came away, as they would from a horse, covered with mucus, and gave him no pain whatever; but then he had a clyster to prevent any mischief. If a person do not attend to his bowels, a great accumulation may take place in the rectum, and the individual may be obliged to pick it out; but this must be bad management. I have known circumstances of this sort occur two or three times. I had another patient labouring under tetanus to whom I gave this remedy, and he also got well ; but if the nurses did not give purgatives

properly he suffered pain in the rectum. I recollect an obstinate hysterical girl, and also the case of a lady, in whom a similiar accumulation took place ; but in these cases it arose from the patients refusing to let us know the state of their bowels. It is right to know that if you do not pay proper attention such things may occur. Dr. Barlow of Bath, mentions a case where sulphate of iron pills were discharged a year after they were taken. This is another general circumstance, shewing that articles may remain for a long period in the alimentary canal before they are voided. Substances which are liable to concrete should not be given unless you attend to the bowels.

It was the fashion a few years ago (and I believe it is not quite out), for people to stuff themselves with whole mustard seed ; they were thought to keep the bowels very open ; some said it was a good practice, and others distributed pamphlets and tracts recommending it. Last year a gentleman came to me with various odd affections of the alimentary canal, which I could not well understand. Two days afterwards he brought me a quantity of seed that had come a way, and I could not imagine what they were, till at last he told me that he had been eating mustard seeds, but had not eaten any for six weeks ; and therefore his danger arose from that. We know that they generally come away whole. One gentleman told me that he sowed them after they had passed through him, and they produced just as good sallad as if he had not used them. Fashionable people have always some whim about them—they are always taking something; but I believe that the day of mustard-seed has pretty well passed by. Mustard-seed will accumulate just as other things.

Symptoms.—Concretions in the alimentary canal if retained give rise to violent vomiting, to violent gastrodynia, dyspepsia, colic, constipation, and to death. By the obstruction which they produce, you have all the symptoms of enteritis, colic, or strangulated hernia. Treatment.—Of course the treatment, whether you know the nature of the concretion or not, is the same as for colic, or enteritis ; but as I said before, it is well to ascertain the state of the rectum. By passing a clyster up the rectum, you will have the means of learning whether the obstruction is situated there. Sometimes these concretions have reached the rectum before they have been stopped,—*Dr. Elliotson in Medical Gazette, August* 1833.

LIGATURES OF ARTERIES.

Anterior Tibial Artery—Anatomical Remarks.—Arising from the trunk of the popliteal, this artery, after crossing the interrosseous ligament almost at a right angle follows as it descends, the direction of an oblique line drawn from the middle of the space which exists between the head of the fibula and the spine of the tibia, and proceeding to the middle of the ancle at the origin of the artery last described. In its upper two-thirds it lies almost bare on the interrosseous ligament, then on the external side, and before the tibia it is more deeply situated the higher you seek it, situated between the common extensor and tibialis anticus muscles superiorly, the tibialis anticus and extensor of the great toe in the middle, and this last muscle and the common extensor in its lower-third. This artery seldom presents anomalies worthy of the surgeon's attention, neither are its branches, except the recurrent, of the least surgical importance.

Operation.—The patient is placed on his back, and the leg held in a slightly prone position, so that its anterior muscles can be extended or relaxed by the assistant.

In its lower third—The skin, cellular layer, and aponeurosis, are to be divided to the extent of two inches in the line above described. The tendons of the extensor of the great toe, and tibialis anticus are then held apart by the index finger, or the point of a sound. The vessel is then readily separated from its accompanying nerve and veins, and the ligature readily applied.

In its two upper thirds—this artery may be exposed in different ways. We prefer by far that described by John Velpeau, and sanctioned by Manec. An incision from three to four inches long is made through the skin only, in the direction of the artery, as above described, that is in the centre of the space between the fibula and the crest of the tibia : or, in subjects of average muscularity and stature, we may take for our guide the space of one inch from the outer edge of the tibia. The aponeurosis is then to be divided to an equal extent on the director, and in the same line as the external incision.

A yellowish line is then perceived between the muscles to be separated. This is accomplished with the fore-finger, which we insinuate in the interval, until it reaches the interosseous ligament. The vessel can then be seen. The foot is now flexed ; the muscles are relaxed, and held apart and a grooved director is introduced into the wound, in the direction of an oblique line drawn from below upwards, or in other words from the fibula towards the tibia. A ligature can thus be applied without the extreme difficulty generally anticipated.

Posterior Tibial Artery.—Anatomical Remarks.—From its origin, a little below the popliteal artery, to its division into internal and external plantar arteries, this artery follows almost exactly the direction of a line rather convex inwardly, which extends from the middle of the calf of the leg to half an inch behind the inner malleolus. Two veins usually accompany it. The posterior tibial nerve generally runs to its peroneal side at a distance of three or four lines. Resting on the deep muscles in its whole extent, it is covered with aponeurosis which exists between

the two fleshy layers, by muscles, cellular tissue, of fascia, and by the common integuments, but in various degrees according to its position. Thus—

In the malleolar arch it is applied close to the fibrous sheath of the common extensor of the toes, about three lines posteriorly to the edge of the malleolus; the nerve is behind; the veins to the inner side: the inner ligament of the tarsus, a fibrous sheath contigous with the aponeurosis of the leg covers it and mingles with the dense issue beneath the skin.

Between the malleolus and the calf, the vessel is farther from the edge of the tibia. The deep aponeurosis binds it down to the posterior tibial muscle, and to the long flexor of the toes, and long flexor of the great toe.

At the calf the artery is very deeply placed almost on a level with the posterior surface, and much nearer the external than the internal edge of the tibia. The covering aponeurosis is fine and silvery, with long longitudinal fibres. The artery is covered then by the tibial portion of the soleus, the inner gastrocnemius, the superficial aponeurosis and the sub-cutaneous cellular layer containing the great saphena vein and nerve.

Operation.—Wherever this artery requires tying, the limb should be bent and laid on its outer side.

Behind the malleolus.—A slightly curved incision is made behind the malleolus, commencing an inch above ending an inch below, and at least three lines behind the malleolus. The tissues should be divided very cautiously, layer by layer and in the grooved direction. On dividing the ligament the vessel is readily exposed. The distance from the malleolus should not be forgotten. If nearer to it, you may cut into the tendinous sheaths. If further away, you run astray in your search for the vessel.

Below the calf.—Make a straight incision from two or three inches long, equi-distant from the inner edge of the tibia and the tendo-achillis. The skin, cellular layer, and superficial aponeurosis being divided, you lay bare the deep aponeurosis with the finger or sound. Introduce the director beneath this aponeurosis in the direction of the vessel and cut it perpendicularly forwards. The vessel is then readily exposed.

In the upper third.—The operation has been represented as one of almost impracticable difficulty. By following minutely the simple and short directions we proceed to give, the experimentalist on the dead body, will get rid of many of his anticipations, of difficulty in the living.

Placed outside the limb, make an incision *through the skin only* about four inches long parallel to, and one finger's breadth from the inner edge of the tibia. Hold aside the saphena vein; divide now the aponeurosis to the same extent as the skin but gradually, the bistoury not dividing more than a line's depth at each stroke. It is of consequence also, that the edge of the bistoury should be directed perpendicularly towards the posterior surface of the tibia. Proceeding thus, you soon arrive at a thick shining aponeurosis, to which the muscular fibres are united. The artery lies immediately beneath this, surrounded by its veins and parallel to the nerve which is readily distinguished by its form and colour. Divide the aponeurosis freely on a grooved director and you at once reach the vessel. —*Lancet, July* 1833, *from Velpeau's Operative Medicine.*

LONDON HOSPITAL—COMPOUND FRACTURE OF THE TIBIA—DELIRIUM TREMENS—DEATH.

June 29. Charles Morris, aged 37, a stout muscular man, was brought into Mellish's ward under the care of Mr. John Scott, with compound fracture of the tibia. The accident happened in jumping from a cabriolet which he was driving; the horse took fright, the reins broke, and in attempting to get out the step of the cab caught his leg, and drove in the tibia, the fibula remaining entire. There was a lacerated wound of the integuments, three or four inches in length in the course of the fracture, which was a little above the malleolus. The periosteum was denuded, and a small portion of bone was removed; there was considerable hemorrhage from two small superficial arteries which were secured, and likewise from the fractured ends of the bone. The leg was placed on a splint and slightly bent on the thigh, the wound was brought together with adhesive plaster, forty drops of the *tincture* of *opium* were given, and the *spirit and lime-water lotion* was ordered to be constantly applied. There was more bleeding during the night, which was arrested by pressure over the wound.

30. Has passed a restless night; pulse quick but soft; countenance anxious; slight hemorrhage through the bandages. The drops were repeated this morning, and are to be given to-night if requisite.

July 1. Passed a rather better night; pulse the same as yesterday; bowels not open; tongue white; the bleeding very slight. The opium was given twice during the day, on account of slight symptoms of delirium tremens.

2. Slept well during the night; bowels acted on twice; pulse soft; no bleeding; the wound has rather an unhealthy appearance, and the leg is considerably swelled and tender. A *linseed meal poultice* to be applied. To take ten drops of *tincture* of *opium*, with five grains of *carbonate* of *ammonia*, in *camphor mixture* three times a day. These drops to be continued at night. One of the ligatures came away to-day.

3. Passed a good night; and has had sleep at several periods during the day. Pulse rather quick; bowels relaxed during the night; the leg much inflamed and swelled. The *saline mixture* to be given, with five drops of the *tincture* of *opium*

three times a day. Twelve leeches to be applied, and the poultice continued.

4. Bowels open; pulse quick; skin hot; tongue dry and furred; the wound has a very unhealthy appearance, and the leg is more inflamed to-day. Twelve leeches to be applied. To take sixty drops of *opium* at bed time. *The saline mixture*, with ten drops of the *tincture of opium* every six hours. Porter two pints and beef tea a pint. About 6 o'clock this evening he was attacked with delirium tremens and made several attempts to get out of bed. He became much worse, disturbed the other patients, was removed to a separate ward, and was obliged to have a strait jacket put on. Pulse full and rapid; breathing difficult, and profuse perspiration. *Tincture of opium* one drachm and a half every five hours. *Spirit lotion* to be constantly applied to the head. Early in the morning the leg was put into a foot board and some *opium* with *brandy* was given. The brandy and opium procured little rest.

5. Much the same: pulse quick; skin hot; had about two hours sleep during the morning. Mr. Scott saw him in the afternoon, when he appeared more tranquil. *Muriate of morphia* one grain, *muriatic acid* two drops, in an ounce of *camphor mixture*, to be given every hour; eight ounces of brandy to be given in the four and twenty hours. Mr. Scott remarked that he preferred giving the morphia in the liquid form, as he did not conceive it to be productive of the same benefit when given in the crude state. Five doses ef morphia were given during the evening.

6. Slept occasionally during the night; taking only three doses. About 6 o'clock he became more irritable and frequently attempted to get out of bed. Another dose with some brandy was given. He took a little breakfast, but is quite delirious, dosing at intervals during the day. About twelve o'clock he rapidly got worse; another dose of brandy and morphia was given, but he gradually sank till four o'clock, when he expired, having taken altogether ten grains of morphia and twelve ounces of brandy.

Post mortem examination.—The head and neck much swelled. The veins and sinuses of the brain were considerably gorged with blood. Under the left parietal bone there was extensive extravasation. No fluid was found beneath the dura mater. On account of his friends waiting outside the depository, no further examination could take place. The leg was in a state of gangrene, and contained a quantity of fœtid matter. —*Lancet July* 1833.

LUMBAR ABSCESS.—NOTIONS OF ABERNETHY AND BEDDOES.

17*th July*. All the Surgeons attended today, and the attention of the visitors was drawn to a number of scrofulous cases. In John's Ward Mr. White opened a lumbar abscess, (case of John Snewing admitted 28th May) which pointed just below Poupart's liagement of the left side. The valvular incision was made, and forty-eight ounces of good pus flowed out.

It was observed that "Dr. Beddoes and Mr. Abernethy both flattered themselves, they had devised a cure for this formidable malady, lumbar abscess. Dr. Beddoes's panacea was the inhalation of hydrogen gas and Mr. Abernethy proposed to dry up the abscess by the gradual evacuation of the matter, taking especial care to prevent the admission of the air, by making a valvular incision. "Having made your incision" Abernethy used to say, "let the pus flow in a good stream, and when you perceive it slacken, press the lips of the incision together, thus closing the mouth of the apostematous sac before all the liquid contents shall have escaped, and consequently before any air can have entered."

Mr. White said, "undoubtedly several instances had occurred, in which, after the admission of atmospheric air, inflammation of the sac had taken place, and speedy dissolution had been the result; but there were nearly as many examples in which no results had followed from that circumstance. There was once a young lady of fortune, who put herself under the care of Mr. Abernethy for this disease. It had existed a long time, and pointed in one of the thighs. He opened the sac according to his well known plan; repeated punctures were made with the utmost care, and of course the digestive organs were not neglected by him. Under this system the young lady improved rapidly, and left London for Cheltenham. Whilst there she met Dr. Beddoes, who took her under his care, and subjected her daily to the inhalation of hydrogen gas into the lungs. In consequence of, or in spite of, this process, she continued to amend, and health became quite re-established.

Dr. Beddoes published a flaming account of this case, and claimed the merit of the cure, without mentioning a syllable of the surgical part of the treatment. This excited the indignation of Abernethy, who, in his lectures, earnestly, and harmoniously set forth claims of the valvular incision to the honor of this cure. The merit of the recovery is probably due to the goodness of the young lady's constitution, and she would very likely have become well, whether the systems of these philosophers had been adopted or not. The valvular form of the incision is a precaution, which, having a show of reason in its favor, may as well be taken. As to the inhalation treatment, it is a natural offspring of such a prurient fancy as that of Dr. Beddoes, and worthy of a place in the erudite system of the Harly-street quack."

Mr. White afterwards stated his belief, that this disease originates in the intervertebral substances of the lumbar vertebræ.

Snewing's general health has been improved since the evacuation of the pus; about a pint of it is discharged daily, its character is good, not exhibiting the slightest putrescency, and the sac has never

given him the least pain or uneasiness.—*Lancet, August* 1833.

OBSTINATE CASE OF HYSTERIA, RELIEVED BY THE EXHIBITION OF OPIUM.

Anne Gough, aged 20, admitted on 25th December, with violent action of the heart, and intense pain of the præcordia. There was loud bruit de soufflet, but no other morbid sound emanating from the heart. Respiration unequal 50 per minute, its sound lost in that of the heart over the whole anterior aspect of the thorax ; pulse 126, jerking and resisting ; countenance anxious.

26th. She was bled, and a dose of opium was exhibited soon after admission, with a view of alleviating the intense pain.

This morning the countenance is less anxious ; the eyes are heavy with opium ; she feels stupified, and has a severe headache and vertigo. She slept at intervals during the night ; pulse 120 ; heart's action and the pain nearly as violent as yesterday ; thirst great ; bowels sluggish. Castor oil to be taken every two hours until it acts.

27th. The castor oil has acted ; she had severe vomiting yesterday evening, and has had slight nausea ever since. Last night whilst attempting to swallow a piece of bread a spasmodic attack of the diaphragm came on and continued for some hours. She has since had tenderness of pressure over the entire abdomen and occasional fits of pain. The urine copious and passes freely. She has frequently an intense feeling of cold over the whole surface, but the real temperature is genial and natural. She has seen no menses for the last two months, and when present they were always scanty and irregular. She has a morbidly acute perception of sound, and indeed of every external impulse. Pain at præcordia undiminished.

31. The pain increased, and the patient actually writhed with agony. She was bled. The bowels were well cleared out, and powerful doses of various antispasmodics were administered ; as much as three of laudanum were conveyed into the stomach, and powerful asafætida glysters were thrown up, but all without effect ; mustard cataplasms and vesicatories were also equally inefficient. The moans of the poor girl disturbed the whole ward : the pulse was exceedingly powerful, and the surface bedewed with pespiration. The pain was unremitting for 48 hours, and was unsusceptible of alleviation.

Under these circumstances Dr. Roe prescribed an enema, containing with other medicines *fifteen grains of opium*. This bold measure produced the desired effect ; in an hour the pain ceased. She fell into a sound sleep, and the respiratory and circulatory disturbance disappeared.

After this cessation, the patient had several exacerbations of pain and spasm, which were relieved always by large doses of opium. Her diet was regulated and the bowels continually acted upon. Her health however but slowly improved, the countenance being always heavy and the complexion muddy. She continued in the hospital until the middle of January, and was discharged for excessive indulgence in food of an unwholesome and stimulating kind, and for bribing the *levites* of the establishment to purchase and bring in the same clandestinely. This woman was placed in Queen's ward which is appropriated to *medical* patients. Several young women, patients in the same ward, soon after her admission were sympathetically affected with hysteria, and in one or two instances the pain became very acute. Purgatives, epispastics, stimulants, and narcotics, were had recourse to with various effect in all these cases.—*Lancet, August* 1833.

CASE OF PURPURA HÆMORRHAGICA.

A young woman, about 24, applied to me a short time since for a severe hæmorrhage from the fauces, her skin was also thickly spotted with petechiæ, and marked with intervening vibices ; the tongue was brown, and the pulse was weak, so that further depletion appeared inadmissible. Carbonate of ammonia was given ; but with no good effect on the hæmorrhage nor petechiæ. Aware of the effect of the action of vomiting on the venous circulation, which it appears to excite in a high degree, I directed half a grain of tartarized antimony to be taken every quarter of an hour in a little water, till vomiting should be produced. The result surpassed my expectation : immediately after vomiting the hæmorrhage ceased; from that time the petechiæ and vibices were gradually and rapidly absorbed, and the young woman recovered her usual health without the repetition of the emetic or the employment of any other remedy.—*Medical Gazette, August* 1833.

CASE OF TIC-DOULOUREUX, CURED BY THE "MINERAL MAGNET," BY E. S. BLUNDELL, M. D. LONDON.

A lady, aged 53, of a robust constitution, enjoyed a tolerable share of health until a few years since, when she was seized one morning, on awakening, with a violent pain in the left side of the lower jaw, directly under the bicuspid tooth, which continued without intermission for several days. She applied to her medical attendant, who considered it to be a rheumatic affection, the result of an exposure to cold during an evening ride. The remedies employed were hot fomentations, followed by stimulating anodyne liniments, for the space of ten days, without any sensible mitigation of the patient's sufferings. At the end of this period a physician was consulted ; the fomentations were omitted, and leeches were applied, and he prescribed a saline mixture, with Dover's powder. These remedies were persisted in for a fortnight, with no better result than attended the exhibition of the former.

The pain increasing in intensity and duration spread from the jaw to the ear,

and from thence to the bicuspid of the upper jaw, and again across the face to the ear, and from thence to the temple. The agony of the patient at this period was great; she was neither able to masticate, swallow, nor speak, without augmenting her sufferings. The disease being now pronounced a decided case of tic-douloureux, the treatment was changed. Carbonate of iron was administered for the space of twenty days, in doses commencing with one ounce, and gradually increasing to six ounces *per diem*, without producing any favourable results. During the last four or five years, morphia, quinine, belladonna, strychnine, turpentine, lobelia, aperients, counter-irritation, and arsenic, were each and severally applied without the slightest benefit.

In July the patient called upon me, and placed herself under my care, in order that I might try the effect of the magnetic treatment. The pulse was 85; tongue pale and puffy: skin hot and dry; countenance anxious, with an icterial tinge; bowels irritable, with tenesmus after each evacuation; the eyes were glassy, and her general appearance was haggard. She stated that she had not had more than half an hour's sleep at a time for the last six weeks. The pain at each attack was confined to the inner orbit of the left eye, upper, and lower lip, temple, and behind the ear.

July 10th. This morning I commenced the application of the magnet, by passing it over the parts affected, for ten minutes. The patient was sensibly relieved. In an hour the spasms returned with increased intensity for a few minutes. After again passing the magnet, she was perfectly easy for four hours. At 10 o'clock I visited her, and found her free from pain. The application of the instrument was repeated every twelve hours from the 11th to the 17th with the most decided benefit. During this period, generous and rather stimulating diet was enjoined, and under this treatment the patient's general health and appearance rapidly improved. From the 18th to the 23rd the magnet was only applied once a day, and on the 24th I repeated the application for the last time. The patient returned home on the 25th, and up to the present date has not experienced any return of the malady.

In this interesting case I could reproduce the pain in the nerve, and transfer it from the head to the extremity of the little finger of the affected side, and *vice versâ*, thus giving a striking illustration of the motion (I had almost said the circulation) of the nervous or vital principle along those mysterious conductors.—*Lancet, August* 1833.

ON A METHOD OF PREVENTING THE ATTACKS OF CATERPILLARS ON FRUIT TREES AND BUSHES, BY MR. WILLIAM BROWN, PINEFIELD, NEAR ELGIN.

At this season of the year, when caterpillars generally attack fruit trees and bushes, the following method of preventing their attacks may not prove undeserving of notice.

Let a hole be bored in the stem of the tree, as far as the heart, in a direction sloping downwards about a foot from the surface of the ground. Into this hole pour a little mercury, close up the hole with a peg, not very lightly fitted in. Cut the top of the peg smooth, with the bark of the tree or bush; and then put a little tar over it to prevent water getting into the hole. This I have found a safe and sure method of not only preventing the attack of caterpillars, but of driving them off the tree; and it is not yet I believe publicly known. —*Repertory of Inventions, July* 1833.

THE INDIA *JOURNAL OF MEDICAL SCIENCE.*

CALCUTTA, MARCH 1, 1834.

At the commencement of our labours, we observed that such a work as the one we were about to undertake had long been felt to be a great desideratum. Nothing can more satisfactorily show the correctness of that remark than the patronage which our periodical has received since it was first proposed to establish it. The demand for an article may be considered as the test of the necessity for its supply. Our subscription list sufficiently shows that the estimate we formed of that necessity on the one hand, and the mode in which an attempt, however humble to meet it, on the other, would be received by the public, was formed on no rash or inconsiderate grounds. In the result we already experience our reward, this is a source of the greater exultation to us, that we scrupulously and on principle abstained from soliciting even our most intimate friends to subscribe to the work. It has accordingly won its own way thus far, beyond our most sanguine hopes; and may now be considered as having fairly overcome the formidable obstacles that generally beset all similar undertakings at the commencement, and completely established itself.

We had intended for various reasons, to limit the extent of letter press to thirty-two pages for each number. In preparing that of last month, however, we felt it expedient to depart from that rule, and to give eight pages more, so that each number in future will not contain less than 40 pages.

Were our means equal to our wishes other improvements would be adopted, but for the present let us rest content, satisfied that in process of time such will accrue in due course, as our resources multiply.

Our bill of fare for this month will we trust, be found sufficiently attractive. Those who have been for many years absent from Europe will have their memories agreeably refreshed by Mr. Atkinson's *Reminiscences of French Surgery*, and those whose sojourn here has been recent, will we doubt not, derive that pleasure from our friend's contribution, which is always excited by a graphic description of what has been familiar to the mind in other and far distant lands. To ourselves the description is particularly acceptable, since we become as it were spectators of one of the most eminent and rapid operators of modern times, Lisfranc. As respects rapidity, however, the term with reference to the operation described, applies only to the literal amputation or cutting off of the limb, for the process of taking up the arteries, and of dressing the stump, appears to have been tedious enough. The flourish of the operator about sawing with the left hand, is characteristic. We hope that the custom of one Surgeon amputating and of another taking up the arteries, &c., is not a common one in France. We object to it on the broad ground of its being inconsistent with that simplicity, which may be considered as the grand principle of all operations. In the ratio of complexity, it may be reckoned as a general axiom is the danger of an operation.

The case appears to have been one of abscess formed most likely beneath the muscular aponeurosis of the limb, and gravitating down to near the knee joint. " If," enquires Mr. Atkinson, " means had been adopted to evacuate the morbid accumulation in time, might not the limb have been saved ? We could have wished that Mr. Atkinson had given us something of the history of the case, if it was known to him. From the appearance of the contents of the abscess, we should be inclined to conclude that the woman was of a scrofulous habit of body ; forming therefore by no means a favorable subject for the trial of such an experiment, an experiment that was as far as it went to bear upon a highly important surgical question. M. Lisfranc appears to have very confidently anticipated that the operation would have a fatal termination. From this we may naturally infer that he had seen the experiment pretty frequently tried before, and that the result was similar. In the case under review, the cause of death was apparently phlebitis. To what extent the woman could bear bleeding, it is impossible for us to say, but it may be observed that a dread of loss of blood in operations is in general too prevalent. On this subject there will be found some highly valuable remarks by Mr. Wardrop, among our selections, from which it appears that the number of recoveries from operations is usually in proportion to the quantity of blood lost during their performance. It is well known that the less the inflammation which attacks a wound is, the more certain are the edges of that wound to adhere by the first intention. May not then the unsatisfactory result of the attempt to heal wounds of amputation in France arise from the system of dressing the stumps? In the first instance, in reference to M. Lisfranc's case, there was a large vein tied, that of itself was a source of great irritation. Next we have no less than eight sutures drawn tight, along the line of the lips of the wound—and above these adhesive straps a pledget smeared with ointment, and then a quantity of dried charpie with bandages to secure all. Of late years there has been gradually extending an impression that too much dressing or covering was applied to stumps after amputation. In the operation alluded to, there were we incline to think too many sutures used where, for ought we know, not one was really necessary, and perhaps, too much dressing. On this head, we would again fain refer to Mr. Wardrop. For some years he has been in the habit of using as little dressing as possible to all recent wounds —" fully convinced that the attempts usually made to draw forcibly and keep together the edges of the wounds by the application of plaisters, ligatures and bandages are the chief causes of the consecutive inflammation." Under other circumstances this able practitioner, instead of endeavouring to produce union by adhesion, allows the cavity of the wound to fill with a coagulum of blood which forms the mildest and best covering to the parts beneath. One reason for the comparative success of operations

on the field of battle is that the dressing is lighter and less complex than in civil hospitals.

Mr. Campbell of Nipal's case of death from six grains of calomel is drawn out with terrible fidelity, and furnishes an awful instance of the mischances that occasionally occur in the use of even a valuable remedy. Cases of this kind possess an interest in themselves as well as in a physical point of view; and in a contemplative mind they give rise to salutary reflexions, and impress the necessity of a cautious exhibition of remedial agents in certain cases. It would be a highly valuable discovery, especially for a country like India where mercurial medicines are pretty extensively used and rather largely administered, if we could determine always what was to contra-indicate their being prescribed. How often when he least wishes for it or expects it, does the practitioner find, that his patient is likely to suffer all the serious annoyance and sufferings of a sore mouth, swelled fauces, and tumefied and ulcerated tongue! Time was when severe salivation was the order of the day, and when the patient was not deemed safe until he was reduced to the pitiable condition, consequent on a severe and protracted ptyalism. When we think of what the practice was in syphilitic affections in the days of our pupilage, we almost shudder at the recollection, and congratuate the profession upon its disfranchisement from the old tooth and constitution-demolishing system. No wonder that the horror of it should have produced a reaction that has perhaps impelled many into the other extreme.

We admire the manly candour of Dr. Campbell in his recital of a case fraught with instruction. There was nothing apparently to contra-indicate the medicine ordered. If it could have been managed, it would have been very desirable to ascertain if any spleen disease existed in the poor fellow who died so peculiarly miserable a death. Ptyalism would in all probability have produced relief. Instead of this, however, a cachectic inflammation set in early, which destroyed the patient. We should be inclined in such a case to try the effects of diaphoretics and the warm bath, with leaching and blistering of the external fauces at the commencement, and the inhalation of the steam of hot-water and vinegar: Query also in a case like this where the cheek is hard and swollen, would benefit accrue from free incisions or scarifications? Under such desperate circumstances the experiment would be justified.

It must be well known to most of our medical readers, that cases of sloughing of the mouth occur in this country even where mercury has not been administered. It will be generally found in such that the spleen is in a state of disease. The first case we ever witnessed of this peculiar and appalling affection was the daughter of a low caste sepoy. The corps to which her father belonged was situated in a very unhealthy part of the country, and more than half the men were on the sick list with fever and bowel complaints. Unfortunately the man was ill with fever, and his wife confined at the same time—so that their poor little girl, a child of five or six, instead of being looked after herself, had to attend upon her parents as well as she could. The man's caste was so low, that it was with the utmost difficulty another sepoy could be found to attend in any degree to his own or his wife's wants, until the Commanding Officer at length was obliged to threaten one or two men of a similar caste with his displeasure if they did not look after their sick comrade. Generally when the medical attendant's visit was paid, the little girl crept into a corner. One day hearing her cough, he asked if she had a cold? The parents with a degree of apathy answered that they believed she had. Examining her more particularly, he was struck with a puffy and shining appearance of both cheeks, especially of the left, and a swollen dry state of the lips. The poor child did not complain, but appeared to labour under a cold, and had as might be expected a dirty squalid appearance. She was ordered a cough mixture and a poultice to be applied to the left cheek, which was smooth and shining like glass, but wanted the temperature and character of healthy phlegmon. What was his astonishment, the third day after observing it, to see it quite black. On endeavouring to get further information on the subject, all he could learn from the parents and friends was that the disease was

jeharbaz or incurable. The whole cheek of one side fell out sphacelated, leaving a ragged frightful wound with glazed and dry edges. The child after this sat crouching near a few burning embers for several hours, till she sunk into the arms of death. In this case there was no external indication of spleen disease, and the affection appears to have been brought on by neglect, and poorness of living in a tender constitution predisposed most likely to the disease.

Are we to consider such a phenomenon as the result of some inexplicable sympathy between the mouth and the spleen, or as the result of some metastasis, or unexplained revulsion of action of one series of organs upon others, still to be accounted for ? Whatever the cause may be, it is of infinite importance, if possible, that some light were cast upon it, for while it remains in its present obscurity, the practitioner must be liable now and then to the anxiety and regret, which a rencontre with such a formidable adversary can never fail to occasion.

The liability of a malignant action of mercury on the mouth in cases complicated with certain organic affections, especially of the spleen, is a fact, which we believe the late Dr. Alexander Russel had the merit, in the first instance, of calling the attention of his professional brethren distinctly to. Accordingly, to all who had the advantage of holding professional communion with him, his remarks on this and other points were highly important ; but there is reason to suppose, that like many the credit which was his just right has been claimed by others, who gleaned in the field where he had reaped, and apparently forgot that they had been preceded.

The liability of such sloughing disease being apt to follow the exhibition of calomel under peculiar circumstances, ought, if possible, to be made known to all the junior members of the profession. But sometimes there are no obvious signs by which the pructitioner may judge of the state of the spleen. It will, however, be always a proper question if the patient has been subject to attacks of fever, especially of intermittent, for such are pretty sure in most cases, especially with native patients, to leave the spleen or some other organ in a state of obstruction or congestion. No case besides Dr. Campbell's has ever come to our notice where the quantity of calomel given was so small, and the amount of suffering produced by it comparatively so great—excepting one, that of a young sepoy in which we were consulted. He had received five grains of calomel in two pills on account of a slight attack of fever. In about thirty hours his face began to swell. There was no salivation. The left cheek sphacelated completely away, and the poor fellow sunk.

The exhibition of calomel is a subject that demands much more space and time for its consideration than we can at present devote to it. There is great reason to fear that this otherwise valuable remedy is too often prescribed in cases where there is no call for it, and given without due reflection. It may be said of calomel as of the fiery element, that it is a good servant but a dreadful master—for sometimes the practitioner finds that he has evoked a demon which he cannot lay again. In Dr. Campbell's case the calomel was joined with purgatives, but we have known it to be given in some cases uncombined, in large doses for a continuance with full time to be absorbed into the system, instead of finding proper channels for carrying it away, after accomplishing its first task ; and in such quantities as to make it all but a miracle that the patient escaped with life. Depletion ought always to precede any thing like the free exhibition of this remedy—as far as the patient's constitution and the circumstances of the case will admit. In cases, where in spite of all precautions a severe sore mouth may have ensued, the sulphate of potash with sulphur will be found useful, and to soothe the irritability of the nervous system and to allay pain, we should be inclined to trust more to hyosciamus and camphor than to opiates. A gargle of soap and water will be found highly useful and agreeable to the feelings of the patient. A gargle also of ℥ii of spirits of turpentine, mixed with eight ounces of gum arabic mucilage, has been introduced to our notice by an intelligent friend, who found the prescription highly lauded in an American periodical, as a remedy for excessive salivation ; and perhaps it may be found efficacious, as turpentine undoubtedly is, in some cases of burns and scalds ; the state of the mouth in severe cases of ptyalism being

somewhat analogous to scald or torrefication.

Under the head of *Hospital Reports*, Mr. Raleigh has excellently availed himself of the pathological materials which his situation at the General Hospital places at his command. Judging from what we have already received, we look forward with confidence to much valuable information of a varied and interesting character from this quarter. All the cases of fever admitted under Mr. Raleigh's charge for the month of January were of the intermittent kind. The disease was generally treated with quinine, preceded by a purgative at night; which frequently checked the disease immediately; seldom a second, and rarely a third paroxysm ensuing. Diarrhœa as is usually the case at that period of the year, when the constitution is subject to sudden chills of damp and cold, was the prevailing bowel affection.

The deplorable case of M. D. is an instructive example of that ignorant neglect in the first instance, and of leaning to quackery in the second, which appear to distinguish Englishmen beyond any other people. This poor man whom we saw at the General Hospital under Mr. Raleigh's care, had about a month previous to admission, perceived pain at the perineum, with difficulty of passing urine. Of all the diseases in the dismal catalogue of human ailments, there are perhaps few or none that require a more speedy reference to scientific knowledge than diseases of the urinary and genital organs, especially in the male. But for his ignorance on this point M. D. might be still in the land of the living. When will *some* degree of instruction in elementary medicine be made a branch of general education? We teach the young to read and write, and how to calculate the main chances of the business of life—nay, we add sometimes a superstratum of flashy accomplishments; but we never give them the slightest notion of their own frames, and 'how fearfully and wonderfully they are made'—and how health is best to be preserved when we have it, or regained when we lose it! Thousands upon thousands of victims annually perish for want of such knowledge. "Oh I did not think myself ill enough to trouble the Doctor," this is the frequent declaration of the victim of ignorant delay. A young female perhaps, like most females young or old, (in consequcnce of the peculiar circumstances of their bringing up and their position in life) passes several days without an evacution from the bowels. She thinks no more about it, especially if unmarried. At length she perceives an uneasiness in her *stomach*, meaning about the umbilicus. Naturally slow to complain, (for women are so) she still says nothing about it, till her mother or her aunt, or some other relative observes that she appears uneasy. The said relative produces peppermint, or a glass of wine perhaps, and further delay takes place. The pain at length becomes agonizing. The Doctor *now* is sent for, and perhaps at too protracted a period to be able to arrest in its fatal progress INFLAMMATION OF THE BOWELS! Let us suppose on the other hand a midle aged or hale elderly gentleman. Perhaps he dines out with some friend, and being liable to irritability of the bladder, feels the desire to evacuate it. He puts it off—and puts it off—though labouring under much uneasiness. He gets into a discussion with some friend, sips his wine, joins the ladies, and sits an hour or two listening to music or chit chat. At length he goes home; but to his surprise finds that he cannot pass water! Being of a kind and considerate disposition, he does not like to disturb the Doctor at that late hour and goes to bed, to pass a night of dreadful uneasiness. The morning comes—all the symptoms are aggravated, and the Doctor is sent for; and lucky enough it is if inflammation of the bladder, or some other mischief, has not supervened in the interim!

But to return to the case of M. D. Not aware that delay in such a case as his own was dangerous, he first took no notice. The passing even of a bougie in the first instance would have perhaps prevented the mischief hanging over him; but he poor fellow knew nothing about bougies, or the urethra either. Urged by the swelling and pain in the perineum, a swelling and pain caused by infiltration of urine that could not pass freely by its natural channel, he at length determines to apply for assistance. And where can our readers suppose did this suffering indivi-

dual apply for relief? He went to a native quack, and put himself under *his* care. Let not our readers be surprised at this. Human nature is always the same, and M. D. relying confidently for the cure of his grievous ailment upon the promises of a Junky Doss, or some such illuminatus; was only treading in the footsteps of his well educated and fashionable, titled and untitled countrymen and countrywomen whose carriages were wont to crowd the porticoes of Mr. St. John Long! What the native quack did for his patient we know not—and the poor man was in too ill a state to admit of being much questioned. Suffice it however that he did not in the slightest degree alleviate his misery, and gangrene stepping in completed what the quack had began, or at least fostered by his presumption.

Dr. W. B. O'Shaughnessy, whose able report on the chemical pathology of cholera has acquired such deserved distinction for its author, has executed a little task that we took the liberty of proposing to him, in a manner that calls for our warmest acknowledgments. A friend, who had spent some time at Penang, presented us some time ago with a quantity of what he called "edible moss," which he informed us was used to the eastward as an esculent for invalids, &c. Of this so called moss we handed a little to Dr. O'Shaughnessy, with a request that he would analyse it. This he has done with as much obliging readiness as ability, and it really affords us gratification to find his name among the contributors to the *India Journal of Medical Science*, which we hope he may be long spared to confer a value upon, by the productions of his pen.

For a description of the article we refer to Dr. O'Shaughnessy's paper. Since the latter came to hand, in looking over a large pamphlet published at Penang a few years ago by Messrs. T. M. Ward and J. P. Grant, Assistant Surgeons of the Madras Establishment; on the Medical Topography and Statistics of Malacca and Prince of Wales' Island, &c. We find the following mention of it. "A species of sea-weed or alga called Agar-agar is found abundantly on the rocks and islands around; and when made into a jelly forms a light and agreeable nourishment for invalids, and an excellent substitute for animal jellies, which are not always procurable." A receipt for making it into jelly is subjoined thus. Take two handfuls of the moss; pick out all the stones, and wash it very clean; then put it into a sauce-pan, and cover it with water; boil for two hours or until it will stiffen when tried in a wine glass; strain and add sugar to your liking; boil it again with white of eggs to clear it, strain again, and when cold, add wine and lime juice to your taste and put it into jelly glasses. Dr. O'Shaughnessy's directions for preparing the fucus as an edible are different from the above, and perhaps to be preferred, as more calculated to draw forth the jelly in a pure and elegant manner. By our friend the Superintendent of the Botanic Garden, to whom we wrote enquiring what he knew concerning the fucus, we were favored with the following note on the subject:—

"The esculent sea-weed which has been analysed by Dr. O'Shaughnessy is called by the Malays Agar-agar, I have no doubt that fucus lichenoides, herb linn, as described and figured in Mr. Dawson Turner's beautiful work on fuci, vol. 2, p. 124, t. 188, is this very species, the variety quoted there from Gmelin's Historia Fucorum, tab. 8, fig. 2, seems likewise to belong to it, while this last author's fucus edulis (not the species so called by Stackhouse) is considered a variety of it. One or more of the algæ coralloides and agarums described by Rumphius in the Herbarium Amboinense, vol. 6, p. 181, 182, and p. 185-187, have reference to the Agar-agar, and the fourth species of agarum, which he designates A, lactucarium, sive lactuca marina Malaica. Agar-agar seems to be the identical species; tab, 74, fig. 3, and tab. 76, fig. A, B and C of this work may be considered as indifferent representations of the plant. The Agar-agar is briefly noticed as a commercial article in Mr. Crawfurd's History of the Indian Archipelago, vol. 3, p. 446."

N. Wallich.

Botanic Garden,
Calcutta, Feb. 24, 1834.

Just as we were penning these remarks a medical friend happened to call, who states that he has been in the habit, for some time back, of prescribing the fucus amylaceus for his patients, and he strongly recommends it as a light and nutricious article of diet for invalids. We prepared a little of it ourselves, and it was highly approved of by all who tasted it; judging from appearance, and having partaken of a little of it, we should be dispos-

ed to prefer it for an invalid, to animal jelly, as more likely to sit lightly upon the stomach.

The Physician in our present number has entered into the details of the cure of Indigestion, the history and symptoms of the disorder having been considered in our last. The subject, it appears to us, is clearly and sensibly treated, and being divested of all technicality, will be readily comprehended in all its branches by our unprofessional readers, of whom we have the honor to be patronised by several, all highly respectable and intelligent gentlemen. In his essay now under consideration, the *Physician* treats of the diet proper in Indigestion, but his consideration of the medical treatment, must in consequence of the press of original matter, be postponed till our next number.

Scalpel's description of the anatomy of a jackal is, as we have stated in a preceding page, highly acceptable. The field of Zootomy is one in which much remains to be done, and we hope Scalpel himself will not rest contented with running down a jackal, but give us a few other specimens feræ naturæ, or otherwise, as he may find himself in the humour. We trust also that others may take a hint from his example, and not forget science even when engaged in the sports of the field.

Our selections have been made with care and all the discrimination in our power; and are such as we may venture to flatter ourselves may be found generally acceptable. Among them is an analysis of tea from the posthumous works of the celebrated Berzelius. We have been induced to translate it by thinking it of importance at the present moment; and because a request has been made to us, that we ourselves would undertake an examination of that valuable article, with a view to detect any salifiable base it may contain, and the difference, if any, between the alkalies of the green and the black.

We are not sanguine, however, as to the success of our experiments. Tea has been operated upon in many ways by some of the best chemists of Europe, at the head of whom was, we believe, Sir Humphrey Davy; without their being able to give any thing but meagre tables of its soluble matter. The account of M. Oudry is, it would seem, rather more than doubted by Berzelius, and it is only because his experiments do "need confirmation," that we have undertaken to repeat them, with such modifications as we may deem fitting to be made. The result will be given in a future number; if possible in our next.

We have to return our thanks to some of our Native friends for their anxiety to contribute to the columns of the journal. Two of the communications sent by Rajah Kali Kishen, viz. on *Haritaki* and *Docta*, were submitted some years ago in the same, or nearly the same form, to the Medical and Physical Society. They therefore do not fall under the class of original articles and consequently do not suit us. We regret that even if the paper possessed more novelty than it does, we cannot afford space for it. In one place it furnishes an evidence of the copiousness of the Sanscrit, in the fact, that this bitter tonic has eight synonimous terms in the language. It is new to us, however, to understand that "it increases the air of the body, and causes ruggedness of temper, &c." The latter circumstance should be borne in mind by the prudent practitioner. The former has reference to the Hindoo philosophy, 'which' the Rajah states 'has it that the body is framed of five elements, namely, earth, water, air, ether and light or energy.' This also was the old philosophy of Europe, which most likely derived it from Asia. The Rajah, who is an intelligent man, and well informed, we believe, in the learning of his country, will find by the perusal of English books that earth, air and water are compounds. Fire and light have not yet been decomposed; but the probability is that their claims to be considered as elements may in strictness not be more legitimate than those of the other so called old elements.

Our young friend Omichurn Bhose's paper on consumption, we have not had time as yet to go carefully over. It remains therefore for future consideration. In the meantime we rejoice to find that our Journal excites so much attention among respectable and well informed natives.

THE INDIA

JOURNAL OF MEDICAL SCIENCE.

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ORIGINAL COMMUNICATIONS

POPULAR NOTIONS ON HEALTH AND DISEASE EXAMINED.

BY J. ATKINSON, ESQ.

There is a general persuasion, even among physicians, that no disease exists without a morbific principle, the critical and indispensible evacuation of which is attended with a perfect cure. Boerhaave explained the phenomena of life by the laws of chemistry, and supposing the existence of acrimonious acids, alkalies, &c. it appeared to him reasonable enough that every disease had a material cause, and that the remedy and cure consisted in the expulsion of the peccant humour. But in all the sciences whose object is the study of nature, nothing is admitted that is not perceived, and that which does not appear is said not to exist. The peccant humour and the morbific principle then, are considered, and justly too, gratuitous and erroneous suppositions. For if they really existed, it follows that all diseases ought, from necessity, to terminate in a critical evacuation; which is not the case. For example, what becomes of the morbific principle in nervous or malignant fevers which terminate without any evacuation of the acid? Does the peccant principle remain in the interior economy, in a state of inaction, and does the patient, who appears to be completely cured, continue to bear within him for future development the seeds of relapse?

The evacuations by which a disease may be terminated, are not promoted for the purpose of expelling a morbific principle They are intended to accelerate the return to a state of equilibrium, and the re-establishment of the deranged or suspended exertions, during the course of the disease. Thus to exhaust a patient with purgatives, diuretics, sudorifics, with the sole view of hastening the expulsion of the evil spirit, or morbific principle, would be to produce a state of the system most likely to occasion a series of dangerous relapses, and eventual death.

The belief in critical days is as inconsistent as that of a morbific principle. It is generally supposed that in the progress of a malady, there are some days during which the complaint appears to slumber to awaken the next day with more intensity, and violence, and to bring on a crisis which decides the fate of the disease. These unlucky days, always described by *odd* numbers and named critical days, are uniformly looked for with the greatest anxiety by those who surround the bed of the sick. If the ninth or eleventh day passes, some hope is entertained. The thirteenth day is much dreaded, and they actually tremble to think of the twenty-first. They have however confidence enough in the benignant influence of *even* numbers.

The terror inspired by certain days is a part of that old notion which ascribes to numbers a favorable or unhappy influence over our destinies. It is one of the fragments of the system of Pythagoras, but notwithstanding the authority of so great a name, this belief is totally destitute of any reasonable foundation.

We know that after an attack, more or less severe, a disease often fatigues itself by its own efforts, stops momentarily—and seems to take breath to renew the charge; but these instances of truce, these renewals of accession, have nothing to regulate or to fix them, and the course of a disease has no rule to go by, like the motion of a pendulum. All the medical men and others who, according to the doctrine of critical days, have predicted the changes, of a disease, have been mistaken in their calculation. On the seventh day they expect a favorable change, and find the situation of the patient aggravated. Those who calculate a critical evacuation by the nose, the bowels, or the kidneys, are astonished to see nothing of the kind occur. An inflammatory fever which ought, on the seventh day, to finish by a nasal hemorrhage, terminates on the sixth in another way, or prolongs itself with desperate obstinacy to set at nought the dogmas of empirical fore-sight. A bilious fever, according to the propagators of the doctrine of critical days, ought to produce on the fourteenth day some copious alvine evacuations, and the crisis should be effected by abundant sweatings. In vain does

experience falsify all the days supposed to be critical. If science profits by it, the world certainly applies to itself no part of the benefit.

Notwithstanding the authority of Sydenham, of both the English and French physicians of eminence, there still exists a belief in the influence of critical days. No doubt chance may have justified in a few instances the prediction of the "critical day" physician, and thus renovated the faith of those whom name and example might have staggered. This prejudice, however, may be the cause of much perplexity and misfortune. A patient has experienced a crisis yesterday, to-day is his well day, and he neglects himself, forsakes his pillow, and in the absence of all medical assistance, he is attacked with an accession of fever, which *ought* not to have supervened till the next day. The unfortunate patient is again stretched on a bed of pain merely because he had been deceived by the 4th, 6th, and 8th, of the month or any other *equal* number. But it should be well remembered that more or less to a sick person every day is a critical and dangerous day—that he should repose no confidence in an apparent calm, and that no day should be considered a good one but that of positive cure.

Some persons addicted to the habit of using tobacco, say that it is recommended to them by the doctor to relieve the headache. In short tobacco is recommended with too little consideration, and thus a taste for it is established at an early period which otherwise would not have been acquired. Reduced to powder, and taken by the nose, tobacco has no curative virtue. Far from removing or relieving the megrim, it is more likely to make it last longer, in consequence of the shock occasioned by sneezing in those not accustomed to its pungency. At first it causes the excretion of mucus which is formed in the nostrils, but after a time it produces no effect.

By an immoderate use of tobacco the flavour is lost ; the pituitary membrane becomes insensible to the stimulus, and the dose must be constantly augmented to produce the sensation wanted. The memory of a man who abuses this powdered Indian weed diminishes in freshness, his imagination cools, his intellectual faculties become overclouded, and he is liable to apoplexy. Women too, do not seem to be aware how much of the agreeables through life they abandon in taking snuff—how prematurely they bring on old age ;—their noses swell and thicken, and are covered with pimples, the upper lip is puffed up, and contrary to all propriety and delicacy they *necessarily* exhale a repugnant and repulsive odour ! I repeat, says the French writer whose sentiments I am giving, that tobacco taken by the nose, cures no disease, and ought not to be recommended to any one because it never produces the least salutary effect. But as it excites on our organs a lively sensation, which we renew at pleasure, we ought to leave it to the aged, who find in this engagement perhaps a slight compensation for other pleasures which they are no longer able to share.

The man of the world who flatters himself that he has enough of medical knowledge to treat himself, falls into a dangerous error, and becomes the victim of his own presumption. This position is illustrated by a memorable example : Lord Byron, embued with erroneous medical notions, would not allow himself to be bled at a time when it was imperiously demanded, and he perished alas ! in that country which he proposed to release from the domination of barbarians.

Some melancholy persons with pthisis pulmonalis, and addicted to reading books which treat of that disease, are often so much affected that they injure their constitutions and precipitate an untimely death. If a disease were always simple, if it preserved always the same character ; if, in short it was always such as described in medical books, uncomplicated with others, it would not be impossible to treat morbid affections, whether existing in others, or in ourselves, with tolerable success. But the same malady differs in quality and degree by means of age, sex, climate, kind of life, labour, &c. and a different treatment is necessary according to the numerous modifications which it undergoes, and especially with reference to each individual constitution.

The non-medical reader of books which teach the art of cure, can never acquire in that way sufficient knowledge to comprehend and exercise so difficult a profession. He flounders on from one embarrassing position to another, and if he be afflicted with any indisposition he always fancies himself a victim to the very disease of which he is reading the description. Rousseau says, "Having introduced a little physiology into my course of reading, I was induced to study anatomy and passing in review the multitude, and the play, of the parts which compose my frame, I expected to feel them put out of order twenty times a day. Far from being astonished to find myself dying, I was amazed that I could still live, and I never read the description of a disease that I did not think myself affected with it. I am sure that if I had

not been sick I should have become so by this fatal study. Feeling the symptoms of each disease, I believed I had every disease, and I gained moreover one, still more cruel, of which I believed I was free, the fancy of curing myself as well as others, so difficult is it to avoid such consequences when employed in the serious perusal of medical books. At length from intense research, reflection, and comparison, I began to imagine that the cause of my illness was a polypus of the heart."—Confessions, vol. v.

To this curious fact may be added the following anecdote. A man of a melancholic and bilious temperament fancying, though in very good health, that he was very ill, begged one of his friends to read a treatise on medicine to him, in order that he might find out his own complaint. In the description of the first disease he thought he had ascertained all that he imagined himself afflicted with. Upon the second description being read, the supposed patient had no longer the first disease. The description of a third produced the same effect, that is to say, it cured the second and gave place to another. From lecture to lecture, from description to description, the melancholic personage, had, in one half hour a dozen maladies successively. At last he found one with characteristic signs, so exactly like the symptoms which he thought he had remarked in himself, that he would go no further. " If such then are the symptoms you experience," said his friend, " you may expect to bring an infant into the world in four and twenty hours, for I have to read to you that these symptoms indicate the immediate approach of an accouchment !"

J. Atkinson.

Barrackpore, Jan. 18, 1834.

STATE OF MEDICINE AMONG THE HINDOOS.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—At the present moment when the subject of Native Medical Education is so much engaging the attention of Government and the public in general, it may be desirable to cast any light, however small, upon the subject of medical systems and medical literature of which the Natives are already in possession.

Indeed common-sense would seem to dictate that before undertaking to teach we should inquire what our scholars already know, and this with respect to the Hindoos more particularly, as I do not know that any European has attempted to explore the contents of the Sanscrit Medical Shasters. Though we have treatises of large dimensions on the philology, mythology, and antiquities of the Hindoos, on their medicine we have positively none at all.

The only exception to these remarks that occurs to me at present is " an account of the medical and surgical sciences of the Hindoos in the *Oriental Magazine* for March, 1823," from the pen (as I suppose) of the indefatigable H. H. Wilson, Esq. This is largely quoted in the preliminary observations to the second volume of the London edition of Ainslie's Materia Medica of Hindoostan, and that author has added a valuable account of one of the Tamool Medical books. Still all this leaves us much in the dark as to the real state of Sanscrit medicine.

Those observations may perhaps render the following extract acceptable to your readers. It is the translation of two chapters of the Sootrausthaun, or first part of the Sooshroota* which is the most popular of the medical shastras, and among the oldest, having been dictated according to the Hindoos by Dhunnunturee, physician of the gods to his disciples, Oupudhenuva, Vaituruna, Orabhra, Ponshkalavuta, Kuruvirya Goupuna, Ruksheta, Sooshroota and some others. This constellation of sages, however, were too numerous to attend their master's lectures at one time, and they therefore entreated him to instruct Sooshroota by himself, and he having received the divine science as their representative, communicated it to his constituents, who in turn diffused it among mortals.

The following then is the translation alluded to :—

Chapter Fourth.—Now here we shall explain the chapter of conversation. To him who has attained the reading but has not expounded it according to the sense, it is like a load of Sandal-wood upon an ass ; it is merely a cause of fatigue. Here is also a stanza.

As an ass bearing a bundle of Sandal-wood has a knowledge of its being a load not of its being Sandal-wood, so indeed they who having read many shastras are yet ignorant of their meaning, carry (their knowledge) like asses.

On this account (in these 120 chapters, every word, foot, verse, half verse, is to be elucidated and to be heard. On which account (the following things) are subtle Substance, taste, quality, strength, assimilation, humours, elements, forces,

* The original of this work is now printing by the Committee of Public Instruction.

viscera, organs, nerves, tendons, joints, bones, the formation of the fœtus, the partition of things (which are) assembled together, then the taking out of extraneous bodies concealed in the body, the ascertaining of inflammation, the distinction of fractures, the curable, alleviable, or incurable nature of diseases, and also other miscellaneous objects; these being considered a thousand times, may produce confusion in the intellect even of a person of pure and large understanding what (will it do) again with a person of little understanding. Hence it is necessary that each word, each foot, sloke and half sloke is to be described and be attended to. Of those occurring matters which are objects of other shastras and which are introduced here through necessity, the explanation is to be heard from learned men, because it not indeed possible to make one shastra comprize all shastras.

Here there are verses, a reader of one shastra only will certainly not understand that shastra. Hence that physician only who has heard many shastras can well understand that physician who having received the shastra uttered from the mouth of his Gooroo and having studied it frequently practices, he is a (real) physician, others indeed are robbers. The books called Oupudhenavany, Ourahrung, Sousdrutung Pouskalavutung; these are the roots of the other shastras of surgery, let (the physician) study them.

Chapter Fifth.—Now here we shall explain the preliminary collection (of instruments.)

There are three kinds of operation. The preliminary operation, the chief operation, the concluding operation; we shall explain these according to every disease. In this shastra, on account of the importance of cutting operations we shall first explain cutting operations and the things necessary for them.

Now here cutting operations are of eight kinds; namely, cutting, dividing, sacrification, piercing, exploring (foreign bodies lodged) in the body, extracting the same, evacuating matter, stitching (wounds.)

Now, by a physician desirous of performing any operation, first these things are to be collected, viz. instruments, knives, caustics, fire, probes, cupping *glasses*, leeches, two gourds, cauterizing needles, cotton rags, thread, leaves, silk, honey, ghee, fat, milk, oil, delicate food, decoctions, plasters, extracts, fans, cold and hot water, boiling pots, &c. and also assistants, attentive, steady, and strong. Then in an auspicious lunar day, and lunar half day, and hour, and mansion of the moon, and having worshipped fire, the Brahmins and the physicians by milk, by whole rice, by drink and by jewels, having caused the diseased person to sit with his face to the east and having restrained him, he (the diseased person) having made a proper enunciation of the muntras and having eaten light food, then the physician having his face to the east and avoiding the vital parts, the nerves, sinews, joints, bones, canals, let him introduce the knife regularly, according as matter is visible, at once let him lift up the knife quickly. But in large abscesses, two fingers, or three fingers, is the extent for the knife.

Then thus large, of equable surface, well circumscribed, these are the good qualities (of abscesses). Here is a stanza extensive, large, well circumscribed, not connected (with any vital part) having found a good time, the abscess (with those properties) is fit for operation. Boldness, quickness in work, sharpness of knives, want of perspiration, of trembling, and of ignorance in a physician (all this) is fit for an operation.

And one inflammation being uncured (the physician) having perceived (this) by his internal perception let him make another inflammation (by counter irritation.)

Here is a verse, whenever (the physician) may know a fistula and whenever also there exists a deep ulcer, there let him make a (contra irritation) inflammation, then disease will not remain.

Now an oblique incision is directed (to be made) in the eyebrow, the cheek, the temple, the forehead, the eyelid, the lips, the gums, the armpit, the abdomen, and the groin, a wise (physician) may cause, make a lunar or solar incision (circular) in the hands and feet and a semi-lunar form also in the anus and penis.

On the other hand by cutting the vessels and sinews (there will be) excessive pain and the heating of the inflammation, and the production of the root of the flesh, (granulations will take place) with much delay. In unnatural presentation of the fœtus, abdominal disease, hœmorrhoids, calculus fistula, in ano, and diseases of the mouth let (the physician) perform his opera tion on an empty stomach; having placed the knives in cold water and having seated the patient, and having pressed all round with his finger, and having cleaned the sore and washed it with (medicinal) decoctions, having taken up water in lint, let him introduce a tent composed of (various medicines) and thickened by til-seed extracts, honey and ghee and having applied a thick bandage not too oleaginous and not too rough, let him tie it with a cloth roller and let him scent (the room) with paint and rukshus

destroying perfumes, and let him perform the patient's preservation by rukshus destroying muntras. Then let him fumigate with fumigations from the powders of Bdellium agallochum, Saa resin, orris root, white mustard mixed with salt and neem leaves, added to ghee. By ghee without any thing else he may preserve the life (of his patient.) Then having taken water from a water pot sprinkling it, let him perform the business of preservation from rukshus.

VERSE.

For the sake of destroying magic and also the fear of rukshuses I will perform the business of purification, may Brahma agree to this. The Snakes, the Pishachas, the Rundharvas, the Yakshas, the Gakshashas, which ever approach thee, may Brahma and the others kill them always, may the night walking (goblins) who walk in the earth and in the sky, and let those who inhabit the quarters and houses being saluted by thee, preserve thee, may the moonis, the Brahma Rajarshees and the Debya Rajarshees preserve thee, also, and the mountains and the rivers all (of them) and all the oceans, may the fire preserve thy tongue, and may the wind preserve thy life, the moon (preserve) thy vital spirit, may Indra preserve thy breath, may the lightning preserve the air in thy throat, may the thunder cloud preserve the air of digestion, may Indra, the lord of strength, preserve thy strength, may Menu thus preserve the two sides of thy neck and thy mind, may the Gaudharvas preserve thy desires, may Indra preserve thy quality of goodness, King Varuna (preserve) thy knowledge, may the oceans preserve the circle of thy navel. The sun thy eyes, the quarters thy ears, may the moon preserve thy mind, may the mansions always preserve thy beauty, the nights thy shadow, augeant aquæ semen tuum, and may the medicines (preserve) thy hair, may the Æther preserve thy orifices, may the earth preserve thy body, may the fire preserve thy head, may Vishnoo preserve thy strength, may Poorooshashrestah, most excellent of men, preserve thy manhood, Brahma thy soul, the north-pole star thy two brows, may those eternal deities (be) particularly in thy body, may they for ever preserve thee, and mayest thou attain long life, may Lord Brahma (produce) thy preservation, may the Devas make (thy) preservation, may the moon and sun make (thy) preservation, and also Nuruda and Purbuttee (cause) preservation, may fire also (make thy) preservation and wind, and also the gods, companions of Indra, may the preservation made by Brahma cause thy preservation, and may thy life be extended, may the *sixtuple calamities perish (with respect) to thee and may pain always be absent.

Here is salutation. By those muntras which are of the essence of the Vedas and which destroy magic and diseases, and by me mayest thou, whose preservation is thus made, obtain long life.

Then having caused the patient to enter his house (the physician) will direct (him according) to rule. Thereupon on the third day having opened the wound let him bind it with a cloth bandage. Let not any hasty person open it, on the next day to the operation. By opening on the second day, the separated inflammation unites slowly and becomes very painful. But after that let the physician, having considered the pus, the season, the strength et cætera, appoint astringents, liniments, bandages, food and regimen, let not a hasty person heal up the sore; having pus in its interior he having made an internal abscess by a very little irregularity (of treatment) will alter (the sore) very much.

Here are verses on this account, let him cure a well cleaned sore both within and without; with a healed sore let him avoid indigestion, fatigue, Venus and such like joy, anger, fear, during the existence of much hardness, at the time of snow and in cold weather and in spring also let the wise man open (the bandages) after three days; and in autumn, summer, and the rains let him do so after two days.

In every violent disease let not the physician attend to this rule, as quickly as in a burning house, let him there do what is necessary to be done. Whatever violent pain is produced by the application of the knife when a person's body is tortured the patient will obtain tranquillity (when) sprinkled with tepid ghee compounded with liquorice roots."

Unsatisfactory as the above directions may appear, some rays of light will yet, by careful examination, be found to emanate from the general darkness. The direction for making a wide opening to deep seated abscesses and preventing their two suddenly closing are not amiss. The comparative mildness of the Sanscrit dressings appears to advantage when contrasted with the cruelty of European surgery even to so

* The original word is ईलि Eelee, which it appears comprehends the following six national calamities "Drought, excessive rains, rats, foreign invasion, foreign conquest, swarms of birds." It appears a strange classification.

late a period as the middle of the seventeenth century, and before we ridicule too severely the muntras for the averruncation of Rukshuses, we must recall to mind the famous sympathetic powder which healed wounds in Europe, not by being applied to the patient, but to the axe or sword by which the wound was inflicted and the more horrible and still more irrational trials for the infliction of disease, by witchcraft.*

I am, Sir,

Your very obedient servant,

T

HOSPITAL REPORTS.

SUMMARY BY MR. RALEIGH FOR FEBRUARY, 1834.

The diseases admitted into the general hospital during the month of February have for the most part been of a benign description, and such as usually prevail at this, which is unquestionably the most healthy season of the year in Bengal, the number of sick in hospital has at no one period exceeded one hundred, and a great proportion of the cases were of a trifling or chronic nature.

It is by no means uncommon to find even among the most indigent, who are at the same time usually the most prejudiced, a strong objection to becoming patients of an hospital, notwithstanding such individuals may be fully aware that every necessary aid and comfort would be afforded them, and their wants much better supplied than could be the case at their own humble dwellings. Yet the name of hospital carries with it such terror that, it is with difficulty they are prevailed on to avail themselves of the advantage which such a charity holds out to them, and frequently not until too late.—This erroneous feeling excited and kept up by the circumstance of sick persons being frequently sent to such institutions in a condition, when, to have recourse to any measures with a view of relieving their sufferings, is not only useless, but annoying and even cruel; they have probably been under medical treatment for many days, remedies have failed of effect, death is inevitable and they are posted off to hospital to die. The two following are examples of this very common occurrence :

1st. A female brought from Calcutta, reported to have been ill several months, died within ten minutes after her arrival at the hospital.

2. Mrs. M. æt, about 40 years, a soldier's wife, stated that she had laboured under fever for twenty days, her condition when sent to the general hospital on the evening of the 3d of Feb. was quite hopeless, she continued to linger until the morning of the 7th when she expired.

FEVER.

Ague and fever continued prevalent through this, as the last month.

Case 1*st*.—J. T. had had a paroxysm of intermittent fever at about ten o'clock A. M. for six successive days. He was admitted into the hospital on the morning of the 2d of February, a brisk purge was first prescribed, after which, Quinine gr. v. at noon, in the evening, and early in the morning.

3*d*.—Had a slight paroxysm, at 10 A. M. R. Quininæ S. gr. iii. every 4 hours.

He had no subsequent paroxysm, the quinine with an occasional purgative was continued up to the 7th.

Case 2d.—D. C. had had ague and fever for seven weeks, at first the paroxysm came on every day, but of late it had attacked him every third morning, his bowels had been freely acted on by medicine; on the 24th, the day on which he was admitted into hospital, he had a paroxysm at 9. A. M. Quinine gr. iii. P. Rhei. gr. i. were directed to be administered every 4 hours through the day and night. He had no return of his complaint from the date on which he commenced taking the quinine.

A few cases of continued fever, the symptoms of which have called for rather active treatment, have been admitted under my charge during this month, of which the following is an example.

Case.—S. G. æt. 30, a robust subject was attacked three days previous to being sent into the hospital, February 17th, A. M. with headache, pain of the back, aching of the extremities, restlessness, and watery purging, his pulse though not full was quick, skin very hot and dry, tongue white, and he was sick at stomach and had a distended tender belly. Bleeding to approaching syncope and an emetic followed by a mercurial purgative, were prescribed. Evening —febrile symptoms somewhat abated, the medicine had acted three times on the bowels. —Bleeding repeated and calomel purge.

18*th*.—Some headache, heat of skin and quickness of pulse remain, leeches to the temples, purgatives repeated.

19*th*.—Local symptoms relieved. The tongue continued white, and skin unnaturally warm for some days which rendered it necessary to continue the use of purgatives up to the 23d, when he was convalescent.

* Vide John Bell's Principles of Surgery, vol I. §. Disc. II,

Dysentery.—Of all the maladies to which human nature is subject in Bengal, there s none which commits such ravages as dysentery; in its acute form it is terrific, in the sub-acute and chronic conditions harrassing, and in all stages fatally destructive. Bamfeild, the best writer whom I have perused on the disease, makes a remark, which appears a very correct one, that there exists between the skin and mucous lining of the colon, in hot countries, a sympathy, correspondent with that, which is maintained in colder climates between the skin and mucous lining of the air passages and fauces, and whereas in England a check of cutaneous perspiration generally causes catarrh, in tropical climes it as frequently gives rise to bowel complaint.

The causes, and nature of the affection in question, have been variously explained and its treatment fashioned as much to p opular sentiment, as to combat with the disease. But the book of nature points out to the practical observer, that the disease is invariably the same in character, although differing in intensity, and consists of inflammation of the mucous membrane of the large intestines (I do not include complicated states of disease) that inflammation in this texture observes the same course and termination wherever situated, claims the same distinction of grades, and calls for a modification of treatment applicable to each shade of the complaint. Such being the case it will appear evident that there can be no specific for a diseasc so very variable in degree, requiring in one stage the most active depletory measures, whilst in another, remedies of an opposite quality are had recourse to with advantage.

Acute dysentery, or a high state of inflammation of the mucous lining of the large intestines, demands active treatment. General, and local blood letting, the internal administration of antiphlogistic medicines, such as calomel, combined with emetic tartar or ipecacuanha, and where there is much irritability of the bowels, unaccompanied by general febrile action, a small quantity of opium may be added with advantage, not given with a view of saturating the system with mercury, but merely as an antiphlogistic, and continued only until indications of inflammatory action have subsided, when these medicines may be prudently changed, frequently before the mouth has became affected for Ipecac. and Blue Pill or Hyd. c. Cretâ and P. Ipecac. Comp. but whilst the symptoms indicate the existence of acute dysentery, the latter remedies do not, as far as my experience goes, merit the same confidence which in a more sub-acute form of the complaint they are entitled to. Drastic purgatives should be avoided throughout the treatment, as productive of an increase of irritation, but occasional mild laxatives, such as a small dose of castor oil or sulphur, will be found necessary, particularly when the acute symptoms have subsided; for after excessive excitement the intestines become torpid, and allow the secretions to accumulate in the canal, occasioning flatulence, griping, &c. warm clothing and especially a flannel petee, should be worn; and the diet should be of the most slender description, in small quantity at a time, and but very cautiously improved as the patient recovers:—in illustration of the foregoing general remarks, I annex an abstract of a case treated in August last.

Case.—J. C. æt. 41 years, a strong muscular man, 16 years resident in India, was seized 4 days previous to being brought to the general hospital with dysentery, during which period he had been purged very frequently; the evacuations, composed of blood and mucus—were passed in very small quantity at a time, with much tenesmus and tormina, there was tenderness of the belly particularly in the course of the transverse colon and at the right iliac region, skin dry, pulse 96 soft, tongue had a thick yellow mucous coating, &c. 6 o'clock P. M. 29th August, bleeding to faintness: inject. domest. R. Calomel gr. x. Ipecac. gr. vi. at bed time, flannel petce.

30th A. M.—The tenderness of the belly diminished, but the character of the stools unchanged and other symptoms as last evening, blood drawn not cupped or buffy, Rept. bleeding Ol. Ricini. oz. i.

P. M.—Stools frequent—entirely of mucus and blood, belly less tender, skin cool —30 leeches to the anus. Calomel gr. vi. Antim. Tart. gr. $\frac{1}{2}$ G. Opii. gr. $\frac{1}{4}$ every 4 hours.

31st. A. M.—Stools continue equally frequent and of mucus and blood—bleeding repeated: medicine continued.

Sept. 1st—There remains very little tenderness of the abdomen, but the stools, which are less frequent, continue of a bloody mucous nature with tenesmus, 2 leeches to the anus. Cont. Med.

Plumb Sup. Acet. dram $\frac{1}{2}$ conjee (warm) lb. i. to be injected up the rectum three times a day.

2d. Little blood in the stools, the belly nearly free from tenderness, &c. Rept. medicine and injections, and foment the belly. Up to this time his diet consisted of barley water or conjee.

3*d*. The stools contain no blood and very little mucus, they are of brownish fluid, the gums slightly affected, Ipec. Pulv. gr. 3 Pil. Hyd. gr. 3 G. Opii. gr. ¼ every 4 hours. Diet milk and sago.

8*th*.—Gradually improved; and now passed but three fœcal stools in the 24 hours—allowed chicken diet.

16*th*. Discharged quite well.

Case. 2—J. C. æt. 23 years, was received into hospital on the 12th of Feb. where he stated that for two days he had very frequent purging with much abdominal pain and straining. He had taken a dose of castor oil in the preceding evening, and during the night had passed as many as forty scanty stools composed of mucus and blood, the belly was tender particularly in the course of the colon.

The tongue white, pulse and skin natural. Bleeding.—Calomel gr. 4 Antim. Tart. gr. ¼ every 4 hours. Flannel Petee.

P.M. Tenderness of the belly considerably relieved, 14 leeches to the abdomen, Cont. Med.

13*th*.—Stools less frequent, tormina and tenesmus much relieved, 16 leeches to lower part of the belly. Cont. Med.

14*th*.—Better; had only six stools. Cont. Med.

14*th*.—Abdominal pain, &c. relieved, had only two scanty stools, omit the Calomel and Antimon. R. Ol. Ricini. oz. i. which operated 5 or 6 times, an occasional gentle dose of castor oil completed the cure, this patient's gums were not affected by mercury.

The greater number of dysentery cases coming under my charge during this month, however, were of a sub-acute description, and in such instances local bleeding by leeches occasionally followed by counter-irritation over the most tender part of the colon, and as medicine,—Blue Pil. Ipecac. and Extract of Gentian or Cinchona were prescribed with benefit.

HEPATITIS.

Although it was, and even continues to be, very much the fashion to consider every pain of the right side "*Liver*," disease of this viscus is by no means of very common occurrence in Bengal, and if a careful investigation of the patient's complaint be entered into, a great proportion of those affections treated as liver disease of some sort or other (for some persons maintain a great variety of shades of the evil) will be found to have their seat either, in the pyloric extremity of the stomach, or more often in the colon, and I have seen not a few instances in which patients have unnecessarily been subjected to a mercurial course, to the decided impairment of their general health, and discredit of a valuable remedy when judiciously prescribed; but the liver as well as others of the viscera is sometimes in fault. The following case of inflammation of that organ was admitted into the hospital on the 9th of February.

J. R.—a sailor, æt. about 30, had been suffering from an attack of inflammation of the liver four days, for which he had been once bled and had taken medicine; at 7 o'clock A.M. of the 9th of February he came under my charge, and at this time pain of the right hypochondrium in the situation of the liver increased on pressure, motion of the body, or inspiration, and incapability of lying on the left side, with a rather quick pulse and white tongue, were the most distinguishing indications.

A.M. Bleeding to syncope and a purgative. —P.M. Bowels acted on, side much less painful or tender, xii. leeches. R. Calomel gr. vi. Antim. Tart. gr.ss every 4 hours.

Leeches were daily applied and he continued to take the same medicine with an occasional purgative up to the 15th, when he was free from symptoms of disease, and joined his ship; the mouth was not affected by mercury.

CURIOUS CASE OF ERUPTION *apparently caused by the internal use of capaiva, cubebs and nitric æther*.

Mr. H. æt. about 30, was taking for the cure of a virulent gonorrhœa, a mixture composed of bals. capaiva, cubebs and nitric æther: after a week he felt as if he had taken cold, the eyes were watery and throat a little sore, for two days, when an eruption exactly resembling measles made its appearance on the face, extremities and body generally; but particularly thickly over the nates and shoulders. The mixture was discontinued, and as he had no febrile symptoms only a mild laxative was prescribed every morning. After four days the eruption flattened down, and left only copper coloured patches which in four days more were extinct, no disquamation of cuticle took place; the gonorrhœa continued unabated, and he recommenced capaiva mixture without its occasioning a return of the eruption. He is positive he had measles when a child.

RUPIA PROMINENS.—Nov. 10.—H. B. æt. about 26, had had sloughing ulceration of the prepuce, and a foul phagedenic sore on the back of the thigh, for several weeks, his general health was impaired. Black wash was applied to the sore on the penis, the surface of that on the thigh destroyed by nitric acid and covered by a poultice; compound decoction of Sarsaparilla and a daily purgative were ordered.

Dec. 16.—The sore on the thigh continued indolent, a pustular eruption came out over the face which by the 23d formed elevated conical crusts. Pil. Hyd Sub. Mur. Comp. gr. x. every night R. Decoc. Sar. oz. vi. Liq. Ant. Tart. oz. i. ter die. Mist. Cath. oz. ii. were now prescribed with an occasional warm bath. By the 9th of Feb. the crusts had all fallen off, leaving smooth red marks or cicatrices in the situations they occupied; his general health also was restored.

Acute Ophthalmia, created by depletion with local astringents.

18th Feb. W. D. æt. 25, had been suffering from an acute attack of inflammation of the conjunctiva of the right eye for several days, the internal tunic did not appear to be involved in the affection.—P. M. bled from the arm and calomel purge given.

19. Leeches near the part affected, a solution of salts and tartar emetic every 2 hours, and a calomel purge at bed time.

20. No decided improvement; leeches and medicine continued.

21. Eye continuing inflammed, leeches and medicine repeated. R. Argent Nitrat gr. x. Aq. Ros. oz. i. a few drops to be dropped into the eye 3 times in the day.

22. No perceptible change. Continued leeches, medicine and collyrium.

23. A decided improvement, Rep. Leeches and other remedies.

24 and 25.—Continued the same treatment with advantage.

28. Well.

Case of Tenia Solium.—Feb. 1st. Mr. M. had for some time past experienced uneasiness of the bowels, nausea, loss of appetite, &c. and had passed a large number of what he called "flat worms" but which, from the specimens he produced, appeared to be separate joints of a tape worm. These he said frequently escaped "alive" per anum without his being sensible of their passing until he observed them falling from him, and that they stuck firmly to any thing which they came in contact with; he had been under medical treatment.

A dose of calomel, colocynth and aloes and a turpentine enema were prescribed at night, followed in the morning by a draught of turpentine and castor oil.

2. Brought away five broad portions of tape worm; Rept. medicine and Turpentine inject. morning and evening.

3. What appeared to be the remaining portion of the worm, twelve feet in length, with very fine tapering extremity corresponding to the head of the animal, came away this morning, he took a couple subsequent doses of the medicine at intervals without evacuating any more worm, and his uneasy sensations being entirely relieved, he was discharged as cured.

THE PHYSICIAN.—No. IV.

ON THE CURE OF INDIGESTION.

The cure of indigestion is very difficult, it depends upon the ever changing fancies of a sick man; more upon the habits of the patient than upon the medicine he takes. The Physician though he has a double duty to do is cast unto the back ground; he must minister unto a mind diseased, as well as to a body out of sorts.

After a proper system of diet and exercise has been entered upon; and all bad habits of smoking, drinking, snuff taking, and eating or drinking to excess, either in quantity or quality, have been left off, the medicinal treatment of indigestion should begin. Till these things have been done medicine is but a palliative instead of a cure: nor, can it long stay the onward progress of the disease. But when these first steps have been taken, and when the complaint is in that stage that, although of some standing, it is by no means incurable, no time must be lost in prescribing the course of medicine most proper for the case. In this stage we find the stomach and bowels overloaded. The former fails to perform its functions, and the latter are torpid. The stomach finding itself unequal to the task of digestion, shuffles off upon its neighbour every thing it can get rid of, and leaves the rest alone altogether; while the bowels are alternately stimulated to undue action, or sink into inactivity in despair. An emetic given here will have the best effect, and Ipecacuanha in powder to the extent of 20 or 25 grains is as good a one as any. The emetic must be followed by a dose or two of a brisk purgative, such as five grains of calomel, and from five to ten grains of compound extract of colocynth given at bed time, with a full dose of castor oil the following morning. By those who have a great aversion for the Oil, Senna and Salts, or Jalap may be taken instead. When the sense of distension and fulness of the stomach and bowels have been relieved by these means, alteratives must be given, so as to keep up their action. And on the choice and application of these milder medicines, the whole success of the treatment depends.

Rhubarb is the best, and most generally employed of all the medicines that act upon

the bowels in the mild manner here desired. Though an undeserved charge has been brought against it, of its losing its efficacy after it has been continued for some time; and even of bringing on costiveness by its use. How long a time is necessary for this effect to take place, must however remain doubtful, till it is proved ever to take place at all. The notion arose from the abuse instead of from the use of the drug; and has been perpetuated by the wit rather than the truth of the quaint, and expressive saying of our forefathers that "Rhubarb, is a good housewife; it sweeps out the house clean, and locks the door afterwards" a rather negative praise the latter, were it true. The fact is that after the use of Rhubarb as a purgative, the bowels become torpid from their previous over excitement as they do after any other purgative, and require a mild dose or two to set them to rights again, and Rhubarb got a greater reputation of locking the door after sweeping out the house, because it was more used in those days, when Castor Oil and Salts were not to be had, than any other purgative. But when taken in a proper manner a few grains at a time as required, either in the form of pills, powder or quids, there is not a better—nay, there is not so good a medicine to keep up the action of the bowels, throughout the whole catalogue of healing drugs.

Rhubarb is often found to be more efficacious when used in combination with some other drugs, than when given alone. Some of these act upon one part of the bowels, and some upon another: thus Colocynth is supposed to exert a specific action upon the higher, and Aloes upon the lower bowels; and it is evident, that, this supposition being true, a combination that will act upon the whole, when the whole are wrong, will be more useful than any single drug, that has its principal, or only action upon a part. Of these combinations there is a very useful one in the Pharmacopœia called the Compound Rhubarb Pill, which answers the double purpose, of a laxative in a small, and a purgative in a larger dose, as well as, or better than, any other. For a slight aperient, from four to ten or twelve grains will be found enough if taken every day either an hour before dinner, or at bed time. This pill also, forms a very good medicine when joined with the Compound Extract of Colocynth.

Ipecacuanha has been much used in indigestion, given with Rhubarb and Gentian, in small doses; but its efficacy in this may fairly be doubted. As an emetic Ipecacuanha may be useful, and probably as an emetic only.

But there is one class of medicines upon which people allow their minds to run in cases of indigestion, that is productive of great positive harm—mercurials. Calomel can never be safely given as a common laxative; nor can Blue Pill. It is true that the latter medicine has the great name of Abernethy in its support, but there is good cause for believing that Abernethy rarely employed it in cases where there was no local malady to point it out. While there is no reason to think that his treatment, in cases of indigestion, was a mercurial one. In short the Blue Pill and Rhubarb of Abernethy were in his skilful hands, a medicine; in those of many others a poison: and sad have been the effects of little men flattering themselves that they were riding his hobby horse, when they were mounted on a vicious brute of their own.

On this point a few words more may be borne. A grain of Blue Pill every night will do me no harm, asks a patient, who is doctoring himself. If by harm, he means salivation, perhaps it will not salivate him. But it will make him more sensible to change of weather, cold will follow cold; and Rheumatism may come on in a form so serious as to call for change of climate as necessary to its cure. Why all this should be, may be left to those who know a reason for every thing; the fact is fact, let the cause be what it may. The liver too has its functions altered by this stimulus, little as it is; and at last it is found out that even a single grain of Blue Pill every night, will do harm, if long continued to be given; and the indigestion, it was intended to cure, has become worse by the treatment. Only as a purge are mercurials good in indigestion.

This condemnation of mercurials may seem too unqualified perhaps, because there certainly are some cases, in which the disease appears to arise from loss of tone, or inactivity of the liver, where they do good. It may be so; but it is worth while to enquire, if the liver is affected through the stomach, or the stomach through the liver. If the former, the complaint may be removed by other than mercurial means, by striking the disease instead of a symptom: if the latter, it is the beginning of organic disorder, and as such hardly comes under consideration in the treatment of simple functional indigestion. At any rate, it will soon be evident whether of the two forms it is, in the latter mercurials may be used so far as they are of use; but in the former it is especially necessary to guard against their abuse.

But Castor Oil is another medicine, whose virtues are great. It may be given occasionally as a purgative, and in smaller doses as a laxative, to produce one or two motions a day. Also, it is said not to lose is effect, however long it may be used, but on the contrary, that the dose may be gradually lessened till half a tea-spoonful will be enough. These are certainly great points in favour of Castor Oil; but, as it can only be taken in a fluid form, it is not every patient who would like to take even half a tea-spoonful a day of so nauseous a medicine, for many days together.

Croton Oil is more like a condensation of Castor Oil than any thing else, and has an advantage over it in being so little bulky that it can be taken in the form of a pill. It gripes however very badly; and causes sickness almost to vomiting, if the dose is not very carefully regulated: aromatics are joined to it to prevent this; but with little or no success. The dose must be very small, varying it of course according to the habit of body of the patient, or sickness and griping will follow, give it with whatsoever you may: an eighth, a quarter, or half a drop, made into a pill with three or four grains of the Compound Extract of Colocynth, is a good way of giving it. Dr. Elliotson speaks very highly of Croton Oil in indigestion, and a most excellent physick it certainly is.

Whether injections come under the head of medicinal treatment may be disputed. But even if they do not, this is the best place to say the little there is to be said about them. They have been much extolled, and in many cases certainly do good. A great thing in their favour is that they prevent the necessity of taking so much medicine, as must be taken without them. They should be used regularly every morning. The common apparatus, a syringe with ball and socket valves, is the best, and warm water with a little soap, as good a fluid as any.

Besides all these things, there are, as every body knows, multitudes of others. The patient must choose what agrees with himself, and this he will soon find out by attending to his symptoms. Tiberius held that the man, who at forty, was not fit to be his own physician, was not fit to live; and so the indigestive patient, who cannot very soon choose his own medicine, hardly deserves pity for a little extra sickness at the hands of the Doctor. Jalap, Senna, Aloes, Scammony, and many other drugs agree with one and disagree with another; and nobody is so well able to tell which is best for a man as he is himself. The Physician can but act according to the general rules of his art; the patient must empirically gain knowledge of his own particular case. The importance of impressing this on the mind of the reader cannot be too strongly insisted on, for an improper laxative always does more harm than good; it had better be left alone altogether.

The quantity of a medicine is as great a matter as the kind. Luckily there is a feeling, almost a prejudice, against dosing the patient with large quantities of physick let the complaint be what it may; and in indigestion it is especially bad. With the exception of free evacuations at the commencement of the treatment, and now and then when any extraordinary reason for them is called forth in its course, general rather than particular results are wanted. The improvement of the whole must be looked to rather than of a part; or a part only, with the view of at least affecting the whole. The action of medicine must be constant rather than violent, as gentle indeed as it possibly can be consistently with the end in view. The smaller the quantity that is necessary to keep up the healthy state of the bowels, the nearer is the patient to a cure. Physick, at the best, is in itself an evil; its action is but the substitution of one disease for another; one power as an antagonist to its opposite; in the hope that nature may finally come to a balance between the two. Just so much should be taken as proves enough for the purpose of procuring one free evacuation of the bowels in the day: and if the diet and exercise are well chosen and due care is paid to the medicinal part of the treatment, it is surprising the small quantity of medicine at length needed. A single pill of a few grains of rhubarb every, or every other day, is enough, and in the end even that may be left off altogether.

As to bitters; tonics, as it is the fashion to call them, there is not much to be said in their favour. For the cure of indigestion they are utterly incapable when used alone; and their effects are at any rate doubtful when they are combined with laxatives. They are also apt to be taken in brandy. A mess is made of Gentian or Cheyretta, Orange Peel, Cardamoms and Brandy; and of this concoction a glass is taken, or it may be, two are drank in the course of the day, to "strengthen the stomach." All this is bad, for not only does it positive harm in itself, but it is too apt to beget a habit of drinking spirits in the morning. The taking of bitters, is the taking a dram.

It is, however, fair to say, a different opinion is held by many. Some people

think highly of bitters, and of Columba in particular. But it must be remembered, that they are rarely given but in combination with laxatives. Let the treatment be confined to bitters alone, and a cure will not take place; while patients readily enough get well without them. If useful at all, it is from their astringent quality, but this is in their favour, or not, as may be. The astringency that braces the stomach, confines the bowels.

Tonics, however, are a very different thing. They are often wanted; and are of the greatest service when judiciously administered. Iron is the one most generally useful; and it has the advantage of being easily joined to laxatives. The Iron Pill with Myrrh, for instance, may be united with the Compound Rhubarb Pill, and Compound Extract of Colocynth, or with both, with much advantage. The Tincture of Muriate of Iron, or steel drops as it is called, from steel being a finer name than iron, is also another good preparation; and like others of this metal should be given when there is loss of energy and strength, weakness and trembling of the limbs, pain in the back, and paleness of the face. There are also other metallic tonics; and particularly some preparations of Bismuth have been highly talked of; but iron is beyond a doubt the best. Gold is given in India still, by the native doctors as a tonic, either in the form of leaf gold, mixed up with various things, or dissolved in nitro muriatic acid. It was formerly used in this way in Europe; but the benefit to the patient may appear doubtful when it is considered, that he delivered it in substance to his apothecary to prepare the medicine for him.

Acids, the Mineral Acids, are useful in indigestion either as tonics, or something else; but very useful they are. The Nitric, or Aqua Fortis; the Muriatic, or Spirits of Salt, as it used to be called, and Sulphuric, or Oil of Vitriol, are all very excellent remedies in some forms of the disease; but they had better not be meddled with, but by the advice of a medical man. In cases where the urine is scanty and high coloured, the Elixir of Vitriol, or diluted Sulphuric Acid, is of very great service.

Nor must the Antacids be forgotten. Those chiefly used, are Magnesia, either the common white Carbonate, or the Calcined, and the Carbonates of Potash and Soda. When there is much acidity, they may be given alone or with Rhubarb, as mentioned above; or the Carbonates of Soda and Potash may be taken, a small tea-spoonful in a glass of water. In this way they are not very nauseous, and most people after a time do not dislike the taste, though they admire it but little at first. Soda and Magnesia Waters are also very useful in this disease, if not drank to excess.

So far with regard to medicines in cases of common functional indigestion. The above remarks do not apply to organic disease. There the treatment must be such as to act upon the diseased organ; but with that we have nothing to do: though unhappily one is but too often mistaken for the other; the treatment of simple functional indigestion being pursued for organic disease, and that of organic disease still more frequently and lamentably for mere functional disorder. These mistakes are fatal, the functional ends in organic, and the organic disease in death.

This fact might be amply dilated on, for in this country we have daily experience of its truth. Scarcely an individual returns from hence to Europe; but his medical attendant there (unless he has been an Indian Practitioner) with his head filled with notions of the liver and the spleen, begins his treatment with an appalling announcement that his patient has got "the liver" and accordingly doses him with mercurials to an extent that shews it will not be his fault if he does not verify his prediction. Every pain in the right side, whether arising from wind in the bowels, or from something irritating that has passed through the stomach, is magnified into "a deep seated blush of inflammation," that might, but for being treated with great care, end in something serious. The ribs are poked with the fingers; the bowels are pressed to find out enlargements, and pains and ails astound the wondering patient and his relations that nobody would otherwise have dreamt of; a single leech is put here, a little blister there, the pain goes away as it would have done, when the "wind moved" without them, and if the case ends in recovery the doctor is thought a marvellously clever fellow: the patient beyond a doubt is a lucky one. Hence it is, that, so few people who leave this country on account of "stomach complaints" and do not recover entirely on the voyage, seldom get well in England; the climate does something for them, but it is not till their return, when they have had the benefit of another sea voyage; as much as possible left off taking physick; and got a medical attendant whose head is not filled with "the liver" that they are perfectly restored to health.

There is another very serious point which should be touched upon; the influ-

ence of medicine upon the mind. It has already been mentioned, that, the most distressing of all the symptoms of Indigestion, is the lamentable state of mental imbecillity it rarely fails to produce. Yet none but those who have felt this can fully tell its horrors, when vacillation, despondency, and self-consciousness, concur to shew the unhappy patient, that the highest of his gifts, the mind itself is diseased. It falls too, most heavily upon those who are least able to bear it, upon literary men who know what they once could do, and that their power of doing it now is lost. Upon those who have studiously trained themselves to equanimity, but who are now disturbed by the merest trifle. This irritation too, if neglected, constantly increases; so that the patient grows more disagreeable to others, and, seeing that he is so, more unhappy in himself. This is a dreadful state of mind: all within and without seems a blank; the strongest becomes the weakest, and the unfortunate victim walks half insane through the street for relief from the fresh air; or seeks it in laudanum or brandy; or too often, urged by a sudden impulse of wretchedess, in self-inflicted death.

And yet, with what ease may a well instructed physician avert the danger of the paroxyism. A few doses of medicine, often a single dose, will calm the whole; anxiety without cause, incoherence of thought, wildness of mind, and despondency bordering on madness, are put to flight as by a charm, and the patient relieved from his imaginary ills is again restored to himself.

A knowledge of this will serve to explain many of those seemingly inexplicable cases of suicide which have, from time to time, astonished the world. And it is evident that the destinies of mankind are more dependent upon it than at first sight would be supposed. The French writers of the age of Louis the Fifteenth were well aware of the influence of indigestion on the mind; and Voltaire in particular, in a passage it is not necessary to quote, has not failed to remark upon it, in his accustomed strain of humorous sarcasm. The whole history of the Romans shews that the despondency of indigestion had no little influence over their affairs, as might have been expected among a people whose love of eating was equal to, and longer lived than their love of war. While Rome was simple in her manners, and frugal in her diet, we hear of no suicide, but for the public good. Caius Marius and Sylla, even in a later-day, when Lucullus began to lavish in costly dishes the spoils of the East, never dreamed of quitting this world by their own hand or by that of their freedman; but fought it out manfully to the last. Yet, keeping pace with the march of gluttony, suicide in a few years became common; and some of the most distinguished men of Rome fell in this way victims to their appetites. The fate of Brutus and Cassius is familiar to all, and Mark Anthony owed his ruin probably as much to his love of the flesh pots of Egypt, as to his fondness for her Queen. On this principle only can the apathy be accounted for, with which the noblest of Rome received and obeyed the mandates of their tyrants, and accepted with thanks the boon of being curious in dying. Slaves of the cooks of Rome, rather than of her princes, life had for them no charms, and death was an escape from disease.

This view of history may be fanciful; but it may be true. Thus can we account for the event, that had a more immediate and lasting effect upon the world, than many which stand far more prominent in the records of its affairs, the death of Otho. This prince, a glutton of the first degree, bad in his life; but great, according to Tacitus, in his death, gave up all for lost, after having been but partially defeated, and by falling upon his dagger left the empire to his rival, as great an eater, and a worse man than himself. The usurpation of Vitellius was a stepping stone to that of Vespasian, without whose power, the great deeds of his son had not been. Man and his actions are thus the slaves of the stomach. Had Otho's digestion been but equal to his love of eating, most probably his suicide and its succeeding train of events would not have taken place; or one single dose of physick, given at the proper moment, would have changed the face of the world. Such are the great things of history—the taking of Jerusalem dependent upon the taking a pill!

There is a very painful, and severe form of indigestion called Spasm of the stomach, which must not be forgotten. It comes on with a a slight pain in the stomach which gives but little uneasiness, and no alarm. In this stage an emetic of Ipecacuanha followed by purgatives such as Calomel and Colocynth, and Castor Oil, are frequently enough, if judiciously repeated, to remove the disease. Sometimes, however the pain becomes very severe, extending across the lower part of the chest toward the back, with tenderness of the breast bone on pressure, and more or less difficulty of breathing. In these cases it is often necessary to give cordials in the first instance; such as Æther, Laudanum

Lavender, and Sal Volatile, in order to relieve the immediate pain; when the other treatment must be afterwards resorted to. If this form of the complaint is permitted to go on unrelieved for any length of time, the symptoms get worse and worse, returning every day, and lasting longer every time. The pain keeps the patient in constant torture, the general health suffers greatly, and the disease at length settles into a confirmed case of the very worst form of indigestion. Early measures in these cases are those alone, by which a speedy cure can be effected. Therefore, whenever pain of a dull kind, giving a feeling of the stomach being compressed, begins to be felt at intervals more or less regular, active treatment should be pursued without loss of time. When, an Emetic, Calomel and Colocynth, Castor Oil, and Cordials, all properly administered as laid down above, will rarely fail to remove the disease.

It is an important feature in this form of the disease, that however great the pain, during the spasms, there are rarely any apparent symptoms when the fit is over. The pulse is tranquil and regular, the tongue clean, and the skin cool and moist, so that instances have but too often happened when the truth of the patient has been most unjustly suspected; and he has been pronounced, even by medical officers, free from disease, when he was daily suffering great pain, and the gradual and sure undermining of his health. This point cannot be too strongly insisted upon; medical men are sometimes too apt to mistake what they do know for what they ought to know; and to think the complaints of a patient are unfounded, because they put on a form new to themselves. Many a man has been stigmatised as a malingerer, and deprived of his bread, because a careless or inefficient medical attendant has thought fit to certify that the sick is well, when the true form of the document would have borne a confession, that he himself knew nothing about the case. And too many have suffered for years, and at last had their sufferings end in death, because they received a shake of the head or a laugh from their Physician instead of advice. In Spasm of the Stomach, it is at first very difficult to say if a patient is really sick, or not; but that very difficulty ought to make men the more heedful as to the opinion they give.

It is now time to bring this paper to an end. It is perhaps needless to say, much has been left out that in a longer essay might have been said. But it is intended like all the rest of the series rather for the Patient than for the Medical Man and therefore it was thought better to do no more than to shew the most prominent symptoms of the disease, and to lay down a few simple rules for its cure. Throughout the whole it has been attempted to impress the fact that the patient himself holds the means of success entirely in his own hands. Without his constant assistance the wisest of Physicians worketh in vain. And he will do well to remember that it will be more pleasant to his own feelings to avoid the necessity of taking medicine, than to take it; to prevent the pangs of disease, than to work out a cure. Indigestion is the disease of excess.

A CASE OF HYDROCELE.

TO THE EDITORS OF THE INDIA JOURNAL MEDICAL SCIENCE.

Dear Gentlemen,—I am so anxious to testify at an early period my sense of the public spirit and zeal in the good cause which has led to the publication of your journal, that although aware of its not possessing much interest, I send you the following case of Hydrocele. It may serve to fill up a corner in one of your numbers.

I am, dear gentlemen,

Your's faithfully,

B. MACKINNON, M. D.

A case of Hydrocele, in which after tapping and injecting a solution of port wine without exciting the necessary inflammation, a cure was obtained at a subsequent operation by a fortuitous extravasation into the cellular substance of the scrotum.

A Burkundauz, of the station jail, was the subject of this case. The Hydrocele was of very considerable size, and on first examining it, felt so hard and fleshy as to resemble an enlargement of the testicle. It was situated on the right side. After one or two applications of blue ointment, the real nature of the case was easily discovered, probably owing to a slight absorption of fluid having taken place. The water was drawn off, but no injection made use of after the first operation. After a second, a pretty strong injection of port wine and water was thrown in, but failed to excite the necessary degree of inflammation: I think owing to my apparatus having been so imperfect, as not completely to fill the tunica vaginalis. In a third operation from some cause or other I failed to draw the water completely off. This cause I guess to have been, that the instrument was held in too slanting a direction, so that on the partial evacuation of the sac no more fluid escaped through the cannula. I was somewhat at a loss at the time of the operation how

to account for the only partial evacuation of the fluid, thinking it possible that partial adhesions between the two coats might be the cause. Another medical gentleman, was present on this occasion, and we were agreed on the propriety of desisting from any further attempt to evacuate the sac for the present. On the day succeeding to the operation most violent inflammation had ensued, to subdue which was found impossible. The cellular membrane sloughed extensively. I made free incisions through the integument. It was the opinion of the other medical gentleman, already mentioned, that the incisions ought to have been carried into the tunica vaginalis, but he failed to convince me of the propriety of such practice, or of even making an opening with a trocar. The extensive wound on the scrotum gradually took on a healthy appearance, matter issued from the cavity of the tunica vaginalis through the original opening, and a cure was ultimately completed. Considerable thickening and induration continued for some time; but this was gradually removed by the use of an ointment of the hydriodate of potass.

Moozufferpore, Tirhoot,
12th February, 1834.

ON THE EFFECTS OF IODINE IN SOME PECULIAR AFFECTIONS.

BY R. FULLERTON, M. D.

It is not my intention to enumerate the various preparations of Iodine and its compounds, as they may easily be understood by a reference to M. Magendie's formularies, but to confine myself to the effects of Iodine and its tinctures as principally used by me.

The first case that occurred in my practice was that of a prisoner in the Goualparah jail, who was affected with inflammation of the liver, and subsequently with a very considerable enlargement and hardness of that organ; it appeared to me that the edge of the liver protruded at the margins of the right false ribs. At first, leeches were applied and a few grains of Calomel and Blue Pill administered, keeping the bowels open with neutral salts; but as the Garrowsas are addicted to the use of opium (or *canne*) in large quantities it was necessary to allow him a proportion mixed with Hyosciamus. The tumid liver remained as before, and I thought that this case was a fair one for the trial of a remedy that I have long been (in many diseases) convinced of its efficacy. A mixture composed of a scruple of Iodine, two Drs. of Blue Ointment, and half an oz. of simple ointment was rubbed on morning and evening. The first application produced vesication, that was speedily reduced by weakening the strength of the ointment by substituting some more simple ointment. It was afterwards continually applied and the tumid liver effectually reduced in the space of 14 days. This case is remarkable from the length of time that it resisted the usual remedies for the treatment of enlarged or tumid liver; and particularly for the facility with which it yielded to the influence of the Iodine ointment, to which I occasionally added a few drops of the tincture.

Case 2nd.—A Sibundy, of the Rungpore Sibundy corps, was brought to the hospital with the muscles of his right leg in a state of tension, accompanied by violent and severe pains, tender to the touch; the cause of the disease was obscure, as the man (who had been out on duty on the hills) was unable to satisfactorily account for the origin of his complaint. It had lasted for several weeks before he applied for my advice. At first he had leeches applied, and in order to induce a flow of blood, poultices were ordered, after this the Iodine ointment, as mentioned in case 1st, was daily rubbed on the affected parts. It is needless here to enumerate the constitutional remedies that were administered; but, with the exception of a small quantity of opening medicine, and once the application of the tincture of Soap and Opium with some Ammonia, the treatment proceeded with the use of the abovementioned ointment, and the result was that the man recovered the use of his leg. The only obstacle that occurred in the cure happened from stiffness of the knee joint, which readily yielded to friction and weights applied to the ancle, and I had the pleasure of seeing the man under arms as sentry at the hospital in a very short time. In this case, perhaps more blood should have been abstracted, but as I have seen many cases of the like (particularly in an officer at Madras) where extensive leeching was employed and suppuration occurred, I think I was right, at least as the result shews, in adopting the treatment I did. However let this rest upon the opinion of more experienced men than myself.

Case 3d.—A servant of my own had contracted a venereal swelled testicle; he also had leeches and fomentations, purgatives, &c. &c. but the swelling remained stationary—then the Iodine was rubbed in night and morning gently, but as he had had a sort of vesicular irruption on the wrist which ultimately sloughed, and for the cure of which a mixture composed of sulphur, &c. and local applications of opium, and nitric acid were ap-

plied; it was cured, and then the swelled testicle was again subjected to treatment, the swelling was reduced speedily, but a most extraordinary effect ensued. The erective powers of the penis were lost for many days, and the fact is that I was obliged to discontinue the use of the medicine and apply camphor which I consider a specific in such cases. In the course of some time, by the aid of tonics he got round, the swelling was perfectly redueed, and his health restored. In this case I have only to remark that the extraordinary effects of Iodine on the genital organs should have escaped the notice of scientific enquirers. I certainly cannot elucidate it but the facts may be relied on; I shall be happy to have the solution.

Case 4th.—Juhaar Sing (Goolkar) of the Rungpore Sibundy corps, affected with Bronchocele (or goitre) had the ointment applied several times, with the result of pain and enlargement of the Thyroid glands. He however had been affected with venereal two years before, also with phymosis and chancre and swelled testicles and chordee. The ointment and internal administration of the tincture failed in the goitre, but cured the swelled testicle and hematocele of the chord.

To reconcile these different results I leave it to those who know more of the subject than myself. I have shown that in goitre, it has failed with me and yet in venereal affections succeeds; also that it has produced strange influences on the generative organs. In conclusion I have to apologize for the imperfection of this short paper, as I have been deprived of the use of my notes (made on the spot) but for the insertion of which at some future period, if the Editors of this new and valuable journal wish, I shall feel obliged.

R. FULLARTON, M. D.

REVIEW.

Observation on Cholera Asphyxia by Jas. Hutchinson, Esq. *Surgeon, Bengal Establishment.* Thacker and Co.

If ever there was a subject that has rendered all attempt at comment trite, it is Cholera. The very word sounds like the fabled muntras of the Brahmins, and tells of mystery and death! The poet has written of one at whose name the world turned pale, but what is a Charles XII, or a Timour, or a Napoleon compared with that tremendous agent that we call Cholera? Where has a conqueror gone forth like Cholera? Even to the most insatiable ambition there are boundaries beyond which it cannot pass, but who on earth can say to this terrific power, "thus far shalt thou go and no further"! In vain have been all precautions, bootless all the efforts of man, fragile and wretched all his barriers and cordons to arrest the progress of Azrael himself, the very angel of death!

Familiarity, we are told, breeds contempt. Alas! no term of intimacy can stale the infinite variety of dread import, with which Cholera is arrayed. What is the plague itself, compared to this Hecate of diseases, the tremendous goddess—the Owla Beebee of the Hindoos? Plague is something tangible. The Pathologist can in some measure follow it, and the physician can contend with it after some regular plan. It may be kept under controul, and its phases afford time to look about one, and to make arrangements for grappling with the enemy; but cholera cometh and goeth, it is here to-day there to-morrow, and with an instaneous potency, illustrates the awful text upon which it expounds with resistless eloquence, that in the midst of life we are in death.

While the Cholera was confined to India, the good folks at home gave themselves very little trouble about it. There was scarcely interest enough in the *Oriental* cholera to raise the attention even of medical quidnuncs. It was the *Indian* cholera, and that was enough to constitute it a bore of the first magnitude, for who cares for anything confined to India? Such is the selfishness of human nature, and such particularly as observed in England, is its disgusting neglectfulness of all and every thing Indian. But how changed became the shadow of the dream when the "grisly terror" began to extend its giant strides from Hindoostan to Persia, from Persia to Russia, from that to Poland, to Germany, to ENGLAND! *Then* became recognizable a fearful interest in that to which people formerly were utterly indifferent. Then came the universal panic of a people ever lauding themselves as the bravest of the brave. Nothing was heard but the toesin of apprehension (if we may use the figurative expression) tolling in every village, town, and city. Then came the pomp and circumstance of selfism, quarantine in all its vexatious and heart hardening forms, and of Boards of Health in all their solemn wisdom.

In going through what has been written on Cholera, the vanity and vexation of spirit of all medical knowledge at the best come forcibly home to the mind. How little do we really know! It is humiliating to human pride to reflect how long nature keeps us floundering in the caverns of her mysteries, before she raiseth the vail

from before her shrines of light. We go on playing blind-man's buff for centuries, till through the machinery of some happy accident she at length permits us to gate a glimpse at her whys and wherefores. For the last seventeen years Cholera has been a fruitful topic of research, and after all, the sages of medicine are not yet agreed as to what it really is. One tells you, it is an ærial poison, another, that it is a vegetable poison existing in certain kinds of food ; a third, that it is an affection of the vascular system ; a fourth of the nervous ; a fifth, that it is caused by a deficiency of electricity, and so forth ad infinitum.* Neither are medical men agreed as to its being infectious or not ; and as to treatment, there is nothing under the sun almost that has not been recommended and treated as a remedy, and all with much the same success ! In short, cholera, its cause, its pathology, and its treatment, to a plain man, endeavouring to work out a system from the serried hosts of conflicting opinions before him, is an enigma which no Œdipus as yet has solved.

Mr. Hutchinson, like others, has buckled on his armour to do battle in the cause of science and humanity, and the result of his investigations is the work, the title of which forms a peg for us to hang these desultory remarks upon. Were we disposed to cavil at names, we might object to the term Cholera Asphyxia, since it is only applicable to an advanced stage of the disease. Cholera at all, as far as its etymology is concerned, is but a clumsy designation. It matters little, however if people understand what it is they mean by names they may use ; for as the able writer of the narrative of the cholera, in the *Lancet*, observes " it is one and the same in India and Archangel on the ice of Moscow or beneath the tropic sunbeams of the Indian ocean." With reference to the nature of the disease as regards an infectious quality, Mr. Hutchinson, at an early stage of his book declares that cholera morbus, like almost every other epidimic appears to be contagious. We suspect that this is merely a matter of appearance, for how few epidemics, after all, can be proved to be contagious ? Yellow fever, Dysentery, Opthalmia, were at one time supposed to be contagious, but who at the present day stands up for such a doctrine ? We all recollect the epidemic fever of 1824, that to use a homely phrase, laid almost every man in Calcutta on his back, but no one that we are aware of deemed it contagious. No one accuses the fever lately prevalent in Calcutta and of which Mr. Corbyn favoured us with a description in the first number of this journal, of being contagious. There is an influenza prevailing at home, as there is now in Calcutta, but we hear of no Boards of Health and Police orders to prevent the spread of infection. When cholera was raging in this country as an epidemic, we do not suppose that half a dozen out of the whole medical service of this Presidency deemed it contagious. No sooner, however, did cholera reach Europe than a belief in its contagiousness began forthwith to prevail. Mr. Hutchinson avails himself of the authority of Sir Authony Carlisle to prove, that diseases which shew no marks of being of an infectious nature on the borders of the tropics, may become pre-eminently so in the colder temperature of higher latitudes. Sir Anthony refers to the progress of the cholera in Russia as a striking illustration of the assumed fact but according to our view of the case, it leaves the question pretty much in statu quo. Mr. Hutchinson however, is not satisfied with this, but endeavours to demonstrate that in tropical regions the case is the same as Sir Anthony Carlisle maintains, it is beyond their borders ; and that the grand epidemic cholera of 1817-18 was of an infectious character, while Mr. Corbyn and others, and we think, on juster grounds, hold the contrary opinion. But Mr. Hutchinson himself is not disposed to deem cholera *obviously* infectious, for we can only, he thinks, in the course of enquiry, rationally expect to discover the minor shades of an infectious character ; he also distinctly disclaims the idea of arguing that cholera is propagated by the influence of contagion alone. Opposed as we are in opinion to Mr. Hutchinson on this head yet must we in fairness concede to him that he has supported his view of the subject with great acuteness and force of reasoning. To enter at length into the argument would not be consistent with the nature of this work, even if our limited space permitted it. We are free to con-

* That able Anatomist and Physiologist Dr. Azoux, of Paris, has published a brochure on the subject of cholera, from which the following is an extract :—

Pour moi, le cholera n'est ni une inflammation du tube intestinal, ni une asphyxie du poumon, ni une maladie cerebro-spinale.

Je le regar de comme une maladie analogue à l'èpilepsie. Le cholera-morbus est au grand sympathique, ce que l'epilepsie est au cerveau.

L'épilepsie apporte des derangements dans les fonctions de toutes les organes de la vie annimale.

Le cholera-morbus apporte des derangements dans les fonctions de toutes les organes de la vie organique.

fess that the facts adverted to by Mr. Hutchinson are exceedingly strong, and ably put; into the opposite scale, however, it has been observed may be thrown facts which tend to prove that the disease has originated in districts previously healthy without any ascertained communication with infected persons, and that on the other hand, the most ample intercourse has existed on various occasions between healthy and infected communities without the former having participated in the disease.' We may state a simple fact which in our opinion is of no little importance in the consideration of the subject. We believe that we are within the bounds of perfect accuracy, when we state, that there is scarcely a month of the year but a sporadic case, or cases of malignant cholera may be heard of in Calcutta. If the disease were of an infectious character how happens it that on such occasions it should not spread; but that it should content itself with snatching off an individual here and there? How is it too that the doctrine of the contagiousness of cholera is so languidly maintained now by its votaries in England, compared to what it was at one time? It would appear as if the belief in it was in the inverse ratio of experience, for at first nothing was heard of but the contagious malignant cholera, but now there is scarcely a voice heard in support of the opinion.

In his researches after the proximate cause of cholera, Mr. Hutchinson rejects the notion of an inflammatory action of the intestinal canal, or indeed any other part of the body. He conceives it to be a disease depending on a certain state of disorder of the function of respiration. This view, he supports, in a very ingenious manner, as our readers may judge for themselves from the following extracts:—

"Let us suppose then, that the atmospheric air becomes noxious to the lungs, either from changes in its electrical or gaseous constitution, the delicate nervous tissue of that organ becomes impaired in its energies, oxygen ceases to be consumed in the quantities essential to life, and the blood is returned to the heart, for circulation through the body, imperfectly arterialized. But it may be asked, if there is any proof beyond mere conjecture, that this is actually the case; I answer that there is, if any reliance can be placed on the assertions of Dr. Davy, and they have never yet been contradicted. The observations of numbers may be considered to establish the fact, that the air expired in this disease is unusually cold, as if it proceeded from an inanimate body; and the last mentioned gentleman actually analyzed it, and found that it had not undergone the changes, which air respired by a healthy individual invariably does. It was less completely divested of its oxygen, and less impregnated with carbonic acid gas. In Cholera, therefore, whether that be the cause of the disease or not there can be no hesitation in saying, that the function of respiration is disordered. It now remains to inquire, if on this principle, the phenomena of the disease can be adequately accounted for.

We have seen, that the blood is returned to the heart, for circulation through the body, imperfectly arterialized; the first organ, which the heart supplies, is itself; and the researches of Bichat have left us no longer in doubt, that the circulation of undecarbonised blood, through its coronary arteries, is destructive of its sensibility. Its two-fold action is affected accordingly; the arterial column is propelled with diminished impetus on the left, while the great venous trunks remain unrelieved and congested on the right; the extremities become cold in consequence, the features livid and contracted, respiration uneasy, and the patient tosses from side to side, in a state of ceaseless jactitation.

The brain and spinal chord suffer in their turn from the same cause, and head-ache, vertigo, *tinnitus aurium*, deafness, and *musci volitantes* denote affection of the former; while spasms of the muscles of the extremities indicate, that the latter has not escaped with impunity.

The nerves on the surface cease to be supplied with arterial blood, and become insensible to the strongest stimuli. To this cause perhaps may likewise be attributed the perverted feeling of extreme heat, insomuch, that the patient cannot bear a single blanket, while the surface is actually icy cold. Whether this reduction of temperature may, with greater justice be attributed to the absence of arterial blood, the impaired nervous energy, or to the cessation of the respiratory function of the skin, I shall not pretend to offer an opinion.

The increased secretions of the skin and intestinal canal, (for I have been informed, that not a trace of the serum of the blood can be detected in them,) while the other secreting organs are apparently struck torpid, I confess myself unable to explain. Whether they ought to be ascribed to the chemical quality of the blood, to the nerves presiding over the functions in question, or whether they ought to be considered as attempts of nature vicariously to assist the respiratory organs, in the

decarbonising process, seems difficult, in the present state of our knowledge, even to guess.

In the course of the disease, the sensorium, which was at first clear and unclouded, becomes obscured and oppressed, and respiration slow, labouring, and stertorous. In some instances, this would appear to depend on an apoplectic state of the sensorium, and in others on congestion of the great blood vessels about the heart, terminating in infarction of the lungs, which may have a fatal issue, even after re-action has been established, if not combated by timely and appropriate measures.

There is another sequela of Cholera, which I have repeatedly witnessed; although it has not been much taken notice of by writers on the disease. The patient recovers from the immediate attack, but no sooner does re-action take place, than he becomes comatose and apoplectic; in short he is poisoned by the circulation of undecarbonised blood, through the substance of the brain."

Mr. Hutchinson recognises a striking analogy between cholera and fever both in its intermittent, and congestive types. Fever, like cholera appears to him to be merely a disorder of function. Both diseases commence generally with a stage of depression; both, he thinks, may be said to be followed by a state of excitement or emotion, and both terminate in throwing off dark offensive discharges. In the accounts of the disease as it prevailed in Russia this analogy is farther illustrated. "The causes of fever and the causes of cholera are the same, malaria and contagion; those most liable to be affected are the same; viz. those who have eaten substances, offensive to the digestive organs, those who are under the influence of predisposing causes or those who have been exposed to the influence of the exciting ones; the best preventives are the same, viz. adequate clothing, tranquillity of mind, generous diet, and a moderate use of wine."*

In respect to treatment Mr. Hutchinson is favorable to blood letting, and concludes his remarks on that head by stating that after all, perhaps no better general rule can be laid down than to bleed in every instance in which the blood will flow. He entertains considerable doubts of the propriety or advantage of exhibiting *opium* in certain stages of the disease.

In the first onset he grants that no medicine can be given with a greater prospect of success, particularly if combined with a stimulant the Spiritus Ammoniæ Aromaticus for example; the following remarks are of high practical importance:

"When the patient is first seen, probably no single medicine can be given with an equal prospect of success; and perhaps this is equally true in regard to its use for the first two or three hours, should there be occasion to continue it; for if the circulation rally under its use, or sleep be induced, it is a great chance the case will terminate successfully; on the contrary, however, if its administration to a fair extent have been followed by no marked improvement, and the breathing have commenced to be difficult, far less laborious, every additional dose of this medicine will be highly prejudicial; as the disease advances, the contents of the cranium become gorged with undecarbonised blood, and every medicine, which has a tendency to encrease that state, can only act as fuel to the flame. With equal propriety might we administer it in apoplexy. I say this advisedly, for I have stood by, more than once, and deliberately observed the stertor and difficulty of breathing increase with every dose of opium. The same remark, I am inclined to think, holds equally true in respect to vinous stimulants, which possess the additional disadvantage of being neither grateful nor congenial to the stomach in this disease.

Occasionally opium will appear to be completely successful in checking the vomiting and purging, the spasms may be trifling or altogether absent, and yet the patient continue to sink with redoubled speed. This is neither an imaginary nor an uncommon case, indeed I have known an epidemic marked by these characters; it is one, however, which requires a peculiarity of treatment: under such circumstances opium is not indicated, and it would be folly to persevere in its use. It must be admitted, that cases of the sort are pregnant with danger in whatever manner treated; but perhaps the wisest course to adopt, is to restore the discharges without delay, and the operation of an emetic offers the best prospect of effecting that object. These observations are not intended in any way to apply to minute doses of opium, given at considerable intervals in combination with calomel, or any other medicine, with the view of stimulating the powers of life, without incurring the risk of overpowering them."

Medicines purely stimulant, that is, partaking in no respect of narcotic qualities, may be had recourse to in Mr. Hutchinson's opinion with advantage. Calomel, he considers, one of the remedies next in importance, or if not in importance, at least in the frequency with which it is administered. When the

* Pages 73. 74.

irritability of the stomach has been allayed he has been in the habit of administering it in moderate doses, from time to time. He has also administered it in scruple doses occasionally; but he cannot say with any perceptible advantage. With respect to nourishment and drink, Mr. Hutchinson, with the view of allaying thirst, and supporting the patient's strength at the sametime, has been uniformly in the habit of allowing the sick a few ounces of milk from time to time. To this he added with advantage—twenty or thirty grains of the carbonate of magnesia every second or third hour. External applications he considers useful as auxiliaries, and therefore should not be neglected.

Such are the principles on which Mr. Hutchinson was latterly in the habit of treating cholera. Still he was not satisfied with the result, and he determined to glance over the materials from which Dr. Jamieson compiled his work, with the hope of discovering a clue to some system which might be more successful. In the search he found in a letter from Dr. Thomson, of this Establishment, giving a report of cases where the use of Tartar Emetic was attended with success. He gave the medicine in divided doses till it induced full vomiting; but our readers will understand the ratio medendi better by our subjoining one of the cases:—

"*Case* 1.—Jhaleem Sepoy, age about 27, of spare habit, but subject to no particular complaint, was brought to Hospital at 11 A. M. 18th December. Says he first felt unwell on the 16th; present illness commenced this morning, with violent purging of thin congee-coloured stuff; retching soon followed; these symptoms continue in full force; eyes sunk; pulse scarcely perceptible; skin cold and clammy; extremities cramped; great thirst; burning sensation in epigastrium; belly distended and painful to the touch; constant cry for cold water. Tart. Antim. gr. i. every 15 minutes, till full vomiting is produced. 12 M.—second dose vomited copiously, much indigested rice and dhal discharged sour and offensive. Pulse the same, cramps less severe; one watery stool. Tart. Emetic. gr. i. to be repeated. Half past 12 M.—three severe fits of vomiting from 3rd dose; more undigested food thrown up; expresses relief from the vomiting. Another watery stool. 2 P. M.—vomited once since last report; some yellowish green stuff discharged; thirst more moderate; pulse more distinct; one stool; cramps bearable. Tart. Antimon. gr. $\frac{1}{4}$ every half hour, warm water occasionally. 6 P. M.—Pulse improving; has taken the medicine regularly; vomited twice; several bilious offensive stools; heat pretty general; annoyance from cramp; trifling pain in stomach, and heat in bowels considerably relieved. Medicine to be continued in same doses, 9 P. M.—Tart. Emetic has been given three times; several reddish stools; frequent nausea, but no vomiting; appears languid; pulse distinct. Tart. Antimon. in half the quantity to be given occasionally during the night. 19th, 6 A. M.—slept a little; feels easy; took medicine four times; four stools of same reddish offensive stuff; vomited twice; pulse feeble, but distinct. Tart. Ant. omitted. Infusion of ginger and congee for drink. 2 P. M.—continues easy; no vomiting or stool. Calomel, gr. x. Pulv. Antimon. gr. iii. statim. Vespere, Infus. Sennæ oz. iii. 20th. 6 A. M.—slight retching in the night; once purged, belly free from pain; spasms in legs gone; tongue moist; pulse firm. Calomel. gr. iii. Pulv. Jalap. gr. x. every two hours, till three or four copious motions are procured. 21st—6 A. M.—3rd dose purged copiously; countenance cheerful; pulse good; makes no particular complaint; bowels to be kept open with Infus. Cheyretta and Senna."

Mr. Hutchinson determined to make trial of the antimonial treatment himself in the first case that occurred to him, and the result was a gratifying one. Shortly after having occasion accidentally to learn that cholera was prevailing at Bancoorah to an alarming extent, Mr. Hutchinson kindly wrote to Mr. Cheek, the medical officer of that station, acquainting him with his having in the records of the Medical Board found a communication containing six cases of the disease treated in succession by means of Tartar Emetic, with perfect success; as well as with the result of his own case. His good intentions were met in a laudable spirit of cordiality by Mr. Cheek, who furnished Mr. Hutchinson with a schedule, forming part of the work under review, containing the histories of 103 cases of cholera, 74 of which were treated with the emetic remedy. This indeed forms a body of information of a highly important, interesting and valuable nature, and the profession is indebted both to Mr. Hutchinson and Mr. Cheek for favouring the public with it. We would fain make extracts from it, but that we have already exceeded the limits to which, in a work like this, we deem it necessary to confine ourselves. The Report is highly creditable to Dr. Cheek as a clinical observer. There is also a very instructive case of congestive fever by Mr. Hutchinson which we would fain extract and enlarge on. The reader will not fail to observe how nature became relieved as the biliary secretion became

restored and began to flow. He will not also forget the circumstance mentioned at page 87, of a scruple dose of Calomel and Opium in the form of pills, having passed off in the evacuation unaltered, for we find it marked in the journal of the case "stool slimy without bile *containing the Calomel pills* unchanged and unbroken." This circumstance is well worthy of being borne in mind, for there is great reason to fear that the disrepute of much of the Materia Medica is owing to the ingredients having been administered in the worst of all forms (as respects the capability of being acted upon in the alimentary canal) pills—a form which we should not be surprised to find some day put down by Act of Parliament.

SELECTIONS.

VEGETABLE ALKALIES.

[TRANSLATED FOR THE INDIA JOURNAL OF MEDICAL SCIENCE.]

From Berzelius' "Traite de Chimie.—2e. partie—Chemie Organique."

We find in the vegetable kingdom many substances endowed with the properties of the salifiable bases; to which the name of vegetable alkalies has been given. The first substance of this kind was discovered by Sertuerner, who demonstrates its possessing the properties of a base. This unexpected fact was not slow to excite the attention of chemists, and it suggested to them the idea of searching for these bases principally in narcotic and poisonous plants. Very soon Pelletier and Caventou discovered other vegetable alkalies in different species of strychnos, white hellebore, and afterwards in cinchona bark. Other chemists have found different ones, and it is probable that we as yet know but a small portion of those that actually exist. At first these alkalies were principally sought in narcotic substances, but having sought for them in many of these in vain, and having found them in the bark of cinchona and root of ipecacuanha, it is probable enough that they should be looked for, whenever we make an analysis of a vegetable or any of its parts. They are met with always in the state of salts, and generally are combined with an excess of a vegetable acid, most frequently with malic, sometimes with gallic, and in some instances with a peculiar acid of the plant. The vegetable substances that may, with some reason at this time, be classed among the salifiable bases are, morphia, narcotia, strychnia, brucia, quinia, cinchonia, veratria, emetia, delphia, solania, corydalia, curaria, and nicotia. Other vegetable alkalies, said to be such, require a new examination of their properties as bases.

The best way of preparation is to extract them from the watery infusion of the vegetable matters in which they are found; to do this the solution must be evaporated to reduce it to a smaller volume, and the vegetable alkali must be precipitated either by an alkali, or by boiling the juice with an earth; magnesia being the best. The greatest part of vegetable alkalies are little soluble in water, and among those at present known, curaria and nicotia alone dissolve with any degree of ease. They often take with them colouring matters, which can be destroyed, according to circumstances, either by a very weak solution of potash, or weak alcohol, cold or tepid. The precipitated vegetable alkali should afterwards be dissolved in boiling anhydrous alcohol, from which it is separated by allowing the solution to get cold, or by distilling the alcohol: the colouring matters sometimes remain with so much pertinacity, that it is impossible to decolourize the alkali without combining it with an acid, boiling the solution of the salt with animal charcoal, filtering it and adding an alkali which precipitates the base in a pure state.

Several vegetable alkalies have the power of restoring the paper, or infusion of tournsole to its natural blue, when slightly reddened by acid, and of turning the syrup of violets green. They thus rival, in their properties as bases, alkalies, earths, the oxides of lead, iron, and manganese, and precipitate most of the metallic oxides. They have generally an extremely bitter taste which they give also to water, even when only slightly dissolved in it. Many of them crystallize; they all unite with acids to form salts, but on account of their containing a great number of simple atoms, they require but a very small quantity of acid for their saturation, compared with those which are neutralized by inorganic bases which are composed of few simple atoms.

Almost all vegetable alkalies form perfectly neutral salts, but they also produce salts containing twice the quantity of acid.

The salts are, like the bases, extremely bitter.

They are almost all capable of crystallization, but some of them also form gummy masses.

Some precipitate themselves in the form of flakes insoluble in water; the greatest part into an excess of acid. They form double salts with those produced by the bases of metallic oxides. The concentrated sulphuric and nitric acids destroy vegetable alkalis

as they do all other vegetable matter. Nitric acid turns them all into oxalic acid, and, besides, produces in conjunction with many of them the fulminating matter known by the name of Welter's bitter. It has not yet been found possible to combine them with sulphur or Phosphorus. It is not decidedly known how they act with "*les corps halogénes.*" Some of them appear, like other bases, to effect the decomposition of water, in consequence of which the base is between a hydracid and oxacid. Others, on the contrary, are decomposed in different ways and take different colours by "*les corps halogénes.*' The colours are shades of yellow, red, and brown. *Donné* has sought a means of distingushing the different bases by the different colours. But it appears that the tints are so changed by the most trifling circumstances, that the same shade is never found twice. The best thing for dissolving vegetable alkalis is boiling anhydrous alcohol and when the solution is saturated, the greatest part of the alkali deposits itself in the process of cooling. Some are very soluble in ether, it dissolves others, on the contrary but in very small proportions. Almost all vegetable alkalis are precipitated by an infusion of Galls; but it must be remembered that the solution of the dry extract of Galls does not precipitate all the bases which are precipitated by the infusion. As to their composition all vegetable alkalis have this in common, that besides carbon, hydrogen and oxygen they also contain nitrogen. When dry distilled they leave besides the usual productions of vegetable matter, a portion of carbonate of ammonia, and deposit a great deal of carbon. The vegetable alkalis most known, have been analyzed with much care by Pelletier and Dumas on the one hand, and by Liebig on the other; and in proper time and place the result of their experience shall be given. It is now only requisite to say that they all contain from $\frac{2}{3}$ to $\frac{3}{4}$ of their weight of carbon, which therefore makes the principal ingredient. The quantity of oxygen which they contain is, on the contrary, much less and the proportion in which they saturate acids, bears no comparison with that in which they neutralize inorganic bases. Pelletier and Dumas have found, that in the neutral sulphates of vegetable alkalies, the oxygen of the sulphuric acid, instead of being triple that of the base, is equal to this quantity, or that the oxygen of the base is a multiple by 2, $1\frac{1}{2}$ or 5 of that of the acid. This difference is caused by this, that these alkalies composed according to the laws of organic nature, contain a greater number of atoms of oxygen than inorganic bases generally do; and when an atom of base unites itself to an atom of acid, and the base contains for example, 6 atoms, and the acid 3 atoms of oxygen, the oxygen of the base is found to be double that of the acid. According to the analysis of Pelletier and Dumas, several of these alkalies form neutral salts, in which 3 atoms of base are combined with 2 atoms of acid, and many of these salts form acid—crystallizable combinations, composed of 3 atoms of base and 4 atoms of acid. It must be admitted, that among these acid salts there are some in which an atom of base combines with one of acid. In all cases it remains to be known if their capacity of saturation is the same for all acids, without regard to the usual connexion between the oxygen of the acid and that of the base; so that acids which contain 3 atoms of oxygen, and others which contain 2 atoms, will saturate relative quantities of these bases, equal to those of the inorganic bases which these same acids require for their saturation; from which the result will be for example, that if veratria contains in the sulphate 5 times as much oxygen as the acid, it would contain in the neutral sulphate $7\frac{1}{2}$ as much. Certainly this proportion would be very extraordinary, but it might be, in connexion with what will be said further upon the different ways of discovering the alkaline nature of these bases. However, according to the recent enquiries of Liebig, these salifiable bases join with acids, only in the affinity of an atom of base to an atom of acid, when they form neutral salts, and even in cases where the neutral salts are composed according to Pelletier and Dumas of 3 atoms of base with 2 atoms of sulphuric acid (sulphates of strychnia, brucia, quinia,) Liebig has found only one atom of base combined with one atom of acid.

The properties of the bases of vegetable alkalies have been explained in many ways, and still they have not yet arrived at any certain result. The different general opinions entertained may be considered in three principal points of view.

1. The vegetable alkalies, combine with an acid in the same manner, as an inorganic oxide, and can produce an anhydrous salt, composed of the two bodies put in contact. This opinion seems to be the one most generally admitted.

2. Vegetable alkalies contain a certain quantity of ammonia, which really constitutes their principle of base, and with which an organic matter is combined in the same manner that many vegetable substances combine with sulphuric acid; so that this matter

unites with the ammonia in the salt formed. This idea has been started by Robiquet, who applies it to all vegetable alkalies, while Lindbergson has considered it more particularly applicable to morphia. It was combatted by Pelletier and Dumas, who brought this objection against it, that if the nitrogen which helps to compose vegetable alkalies, were in a state of ammonia their power of saturation would be proportioned to the quantity of nitrogen they contain, which is not exactly the case. These alkalies saturate either the same quantity or $\frac{2}{3}$ or $\frac{1}{2}$ of the quantity of acid which would be required by the ammonia accruing from their nitrogen. And besides, morphia, which contains only $5\frac{1}{4}$ per cent of nitrogen, is found to saturate 1 and 1-5th more acid, than for example, quinia, which contains $8\frac{1}{2}$ per cent. more of nitrogen. It follows at least from this, that all the nitrogen, contained in vegetable alkalis, is not found in the state of ammonia. However, the quantity of nitrogen does appear in general to influence the composition of salts. In taking for the bases of the calculation, the analysis made by Pelletier and Dumas, it is found that when an atom of the base contains 3 atoms of nitrogen, 3 atoms of the base combine with 2 atoms of acid; while, when the base contains 4 or 2 atoms of nitrogen, the neutral salt is composed of an atom of base and an atom of acid. But the analysis of Liebig seems to prove that each atom of the vegetable alkalies which he analysed, contains two atoms of nitrogen. Therefore in taking the experience of this distinguished chemist as a guide, the acid and the nitrogen of the base are exactly the same as in the salts of Ammonia. Nevertheless Liebig pronounces against the hypothesis which considers vegetable alkalies as combinations of Ammonia and organic bodies, for if this hypothesis is true, when they are destroyed by strong acids they ought always to form a salt of ammonia, which, according to this chemist, does not happen in decomposing strychnia, or brucia by nitric acid.

2 Vegetable alkalies have, in common with ammonia, the property of not forming true salifiable bases unless combined with water; in this case, the proportion in which they saturate acid, depends upon the quantity of water, or in other terms, vegetable alkalies considered in this point of view, only combine with fluid acids and without setting at liberty the water of these acids. If a similar analogy is not to be admitted between ammonia and vegetable alkalis, it is difficult to have a clear idea of their combination with hydracids; for example, with hydrochloric and hydriodic acids; of these combination the anhydrous vegetable alkali combines with the hydrogen in the acid, or it gives up to the hydrogen of the acid a corresponding quantity of oxygen; representing, in either case, the metal which is mixed in the composition of inorganic halosels.

This view of the subject appears quite confirmed by Liebig's researches. In fact this chemist found, that when a vegetable alkali, perfectly free from water, is gently heated in a current of hydrochloric acid, this last is absorbed without the alkali giving out the slightest quantity of water or gas. The sulphates, on the contrary, contain (according to Liebig) a quantity of water, which it is impossible to draw off by heat without decomposing the salt, and which amounts to two atoms for each atom of sulphuric acid. Although the last fact has only been ascertained from experiment on the sulphates of morphia and quinia, it appears to me reasonable to suppose, as a consequence, that vegetable alkalies are organic combinations of carbon, hydrogen, nitrogen and oxygen, and form, when joined to hydracids, a species of salts haloid, to which the hydracid adds exactly the quantity of hydrogen which is necessary to make the nitrogen, which was before in a state of ammonia, take the form of ammonium, that is to say, to NH4. When they combine with oxacids they absorb the water of fluid acids, which enters as a necessary principle into the composition of the Salt; from what has been stated above, this water is probably double in quantity to the alkali, so that each atom of base contains 2 atoms of water. It must be remarked that, in this point of view, vegetable alkalies present one of the characteristics of the ammoniacal salts, in fact the combination of ammonia and hydrochloric acid, free from water, is isomorphous with the chloruret of potass, while the sulphate of ammonia becomes isomorphous with the anhydrous sulphate of potass only, when it contains 2 atoms of water to each atom of acid, the salts corresponding to the bases of vegetable alkalies, are acted on in the same manner. Many vegetable alkalies have become of great importance in medicine.

CASES OF

STONE IN THE BLADDER,

Cured by Percussion.

Case I.—Mr. J. Webb, soda water manufacturer, ætat. 15, residing at Islington, of a good constitution, after having

voided gravel for about three years, experienced about a year ago symptoms of stone in the bladder. The inconvenience he at first felt was so trifling as scarcely to attract his attention, but soon the pain became so severe and continual, that he was unable to transact his business. He found riding attended with the most excruciating pain, and he could not walk far without equal suffering, and a considerable discharge of blood taking place with the urine. In this state Mr. Webb consulted me, and on sounding, there appeared to be two calculi in the bladder of about ten lines in diameter, which were comminuted in three short applications of the percuteur. The patient found difficulty to get as far as my house to undergo the first operation, on account of the pain and irritation which were occasioned by exercise ; but when the stones were once broken, immediate relief was obtained, and for the two remaining operations, to use his own words, " he took my house as one of his calls," and after the operation, drove about to terminate what other business he had on his hands for that day. From this we may conclude that, portions of a stone do not always cause more pain than the entire stone.

Case 2.—Mr. John Lord, of Manchester, 60 years of age, a constable of gigantic stature and strength, after four or five months' suffering from uneasiness and pain in making water, and finding himself unfit for the active duties that devolved upon him, consulted Mr. Ransome, an eminent surgeon, at Manchester, who sounded the bladder, discovered a stone, and kindly recommended the patient to my care. He immediately came to London. I found a moderately capacious and sensitive urethra, but in a soft fungous condition bleeding at the mere contact of the catheter. The prostate was enlarged, and the bladder powerfully contractile, and containing a stone which appeared of an oval shape about two inches long and nearly an inch thick. From its large size, it was not very moveable. The stone must have begun to accumulate long before the patient had the least idea of its presence.

In five applications of the percuteur each of about three minutes' duration, this calculus was broken and voided. A considerable quantity of the detritus was unavoidably lost, but what was collected weighed a little more than an ounce and two drachms. It was hard, and composed of lithic acid. [This patient was operated on in the presence of numerous medical gentlemen.]

Case 3.—Mr. J. Forster, aged 63, residing at Bleasby, near Newark, of a delicate constitution, although generally in tolerably good health, had been afflicted with symptoms of stone in the bladder for upwards of four years, and had, previously to this, voided gravel at different times, for thirteen or fourteen years. The symptoms of stone became gradually more and more severe, and the patient consulted Mr. Attenburrow, senior surgeon to the Nottingham Hospital, who sounded, and felt a large calculus in the bladder. This patient was presented to me during one of my visits to Nottingham. He had a moderately large urethra, little sensibility, a regularly conformed bladder, slightly contractile, and containing a large ovalshaped calculus, probably upwards of two inches long ; it was hard and heavy, and although it could be moved when the bladder was not in a state of contraction, it was immoveable during the morbid systole of that organ.

Six applications of the percuteur were performed, which effected the entire removal of the stone. The first application was made publicly at the Nottingham hospital, before more than a hundred medical gentlemen. The remaining five were performed in London where the patient joined me shortly after the first operation. These were witnessed by Dr. Faraday, and numerous professional gentlemen. On the return of this patient to Nottingham, he was sounded by the surgeons of the hospital, from whom I had the pleasure of receiving shortly afterwards a letter, confirming the entire removal of the stone from the bladder, and the complete cure of the patient.

Case 4.—In one of my journeys into Nottinghamshire, Robert Wingfield, a shoe-maker, sixty one years of age, consulted me at the recommendation of Mr. Hickenbottom of Nottingham. I was then on the point of returning to London, and only had time to sound the patient conjointly with Mr Oldknow, surgeon to the Nottingham hospital. A stone of about an inch in diameter, smooth and moveable was distinctly felt, and it was agreed that the patient should come to London in a few days. On his arrival I presented him to Mr. Earle, who had the kindness to procure him admission into St. Bartholomew's Hospital, to be operated upon publicly.

Three applications of the percuteur were performed before a considerable number of medical gentlemen and the pupils of the hospital. In the first, the stone was seized and broken. In the second, the portions too large to be voided naturally were reduced into

smaller pieces and powder, and the third indicated that there were still a few fragments remaining, but so small that they could be easily expelled, the instrument was therefore withdrawn without acting upon them. In a few days the remaining pieces were voided and the patient was perfectly cured, and dismissed from the hospital, with clear and healthy urine, and was able to walk several miles without the least inconvenience. He was sounded by Mr. Earle before he left, and the bladder was found free from stone. To use the patient's own words " he felt himself twenty years younger than when he came in."

Mr. Oldknow also sounded the patient on his return to Nottingham and further confirmed his cure.

Case 5.—Mr.*** a gentleman residing in Hampshire, of a good constitution, and a renowned inamorato of fox-hunting, had been unable to follow this active and favourite exercise for several months, on account of the pain and irritation which it occasioned in the bladder and urethra, and the hemorrhage which was sometimes produced. Uneasy and alarmed at the increased severity of these symptoms, Mr.*** repaired to London, and consulted Mr. Copeland, who discovered a stone in the bladder, and had the kindness to recommend the patient to me.

The urethra and bladder were in good condition, and the stone was about ten lines in diameter. Two short applications of the percuteur, performed in the presence of Mr. Copeland, Mr. Pope and my pupil Mr. Biggs, sufficed to remove this stone. The patient returned into Hampshire about a fortnight after his arrival in London, and resumed his athletic amusements.

Mr. Copeland and Mr. Pope, conjointly with myself, carefully examined the bladder before Mr.*** left and ascertained that no stone remained.—*Lancet, Aug.* 1833.

CONVEYANCING, STONE IN THE BLADDER, LITHOTRIPSY DECLINED, LITHOTOMY, LACERATION OF RECTUM, RECOVERY.

August 10th.—During the clinical perambulation to-day, Mr. Guthrie jocosely charged Mr. C. Brooke with having " polished" into empty space the hemispheres of a beautiful mulberry calculus, given to him to prepare for the nascent museum of the hospital. This calculus was extracted in January last from the bladder of a little boy by Mr. White. After some enquiry, it appears to have got safely lodged *in the museum of Mr. Guthrie's Opthalmic Infirmary ! !* Under what law of *conveyancing* it has acquired its present local habitation, it might not perhaps be easy to indicate. It is certain that it was not through the instrumentality of Mr. Brooke, than whom there cannot be a more zealous friend of the Westminster Medical School.

The little boy from whom this calculus was taken, is named James Musgrave, and is twelve years old. He originally presented many features of struma, but since the operation he had acquired a very good colour, and accumulated some fulness of habit. He remained till very recently in the hospital, and was *examinable* in John's ward. He was admitted the latter end of December last, with all the symptoms of stone in a severe degree. He was shown to Baron Heurteloup, who declined to " percus," for reasons best known to himself. The boy was exceedingly timid and restless, and would not quietly bear the introduction of a sound. These were the reasons assigned against practising lithotripsy. With Leroy, however, such reasons are not urgent, for he has published cases in which he has operated upon children of three and four years old. Some other explanation may have been given by the Baron, but it did not reach our ears.

January 19th, 1833.—Mr. White being determined to perform the lateral operation, had the child brought into the theatre. The boy resisted most strenuously, and protested against the operation. The parents, however, having empowered the surgeon to act according to his own discretion, and the boy's health being very much impaired by the derangement of the urinary system, the patient was mastered, and pinioned *secundum artem*. The usual incisions were perfected in the usual manner with the scalpel and bistoire cachè, and the opening into the bladder was made as large as the relation of the parts would allow. All this was effected with perfect ease. The forceps were introduced and the stone seized, but immediately slipped away. It was laid hold of again and again and as often escaped, and when a firm grasp was obtained, it was found impracticable to pull it through the wound. Numerous were the attempts made with various forceps, and powerful was the stress applied, but every effort was in vain. At length the rectum was lacerated by the ragged surface of the calculus, and it slid into that gut. The operator now passed the forceps per anum, and took hold of the stone, but every pull *ad se* was resisted by a spontaneous contraction of the rectum, and the stone was driven back again into the bladder. After some further manœuvring, contriving and striving, the perverse calculus was dis-

lodged. The patient was forty minutes on the table; but he made less resistance than was anticipated. Mr. White, according to his invariable practice, plugged up the aperture into the bladder, "in order to prevent the urine from flowing over the surfaces of the wound, until they shall have been covered with a tunic of protecting lymph." This requires about twelve hours to take place. The boy was allowed a draught of diluted wine, and put to bed. During the operation Mr. White maintained an unruffled temper, and explained, as he proceeded, the several difficulties as they arose. He was assisted by Mr. Guthrie and Mr. William Lynn.

23. The boy has had two restless nights and a restless day. His stools, which are loose, and his urine, pass through the wound. His pulse 135, bounding, tongue dirty, countenance anxious; features much contracted; skin hot and dry; tenderness of the abdomen, to which a dozen leeches are to be applied. Saline diaphoretic medicines.

24. He is very pallid, and rather emaciated. The stools entirely pass through the rent in the rectum, and the urine in a great measure through the wound. Pulse 130, irritable; tongue furred. The skin is dry, but he perspires occasionally. He sleeps tolerably; his appetite is pallid; the bowels are open four or five times daily and the thighs are stained with the fæces, which are of a bright yellow colour. A chalk mixture with opiate confection, is administered at proper intervals.

26. Appetite reviving; countenance less distressing. He is more emaciated; the diarrhœa still exists; the urine and fœces still pass through the perineal fissure; pulse 136, irritable. Port wine, astringents and opium.

29. Great irritability and fretfulness; face assuming the Hippocratic character; left eye inflammed, and discharging a mucopurulent rheum; bowels are less open; stools of good colour, and of a theromatous consistence; pulse 132, small; skin natural, great emaciation.

Remedies continued, and a warm goulard lotion applied to the eye.

In a few days after this last notation, the diarrhœa ceased, and the patient immediately and sensibly improved. The pulse fell, the tongue cleared, the appetite returned, the countenance brightened, the skin became soft, moist and genial, and his sleep grew light, sound, and refreshing. Some variations, however, occurred in his progress, occasionally amounting to relapses.

Feb. 21. The fæces are all expelled per anum, the fissure in the rectum is healed, the urine flows entirely through the urethra. The wound into the bladder is closed, and its external surface is covered with healthy granulations. A catheter is passed daily into the urethra and kept in. He is a good deal emaciated, his countenance anxious, his appetite capricious, and his pulse 135.

March 1. The external wound is contracting, and bids fair to cicatrize speedily. The catheter produced so much vesical irritation by being kept in the urethra, that it was necessary to discontinue its use. The pulse is natural, his appetite is hearty, and the several functions are kindly and beneficially employed.

Since the last noted period, the boy's health gradually amended, and in the course of a few months he assumed the hygeienic appearance already described. The calculus is sixteen lines in diameter; it is rough and mammillated, its nucleus is composed of phosphate of lime, and on the superficies are plentiful depositions of the crystallized oxalate of lime.—*Ibid.*

CASE OF

ARTIFICIAL ANUS,

Successfully treated according to the mode recommended by

BARON DUPUYTREN.

By Samuel Hurt, Esq. M. R. C. S. L. Mansfield.

CLEMENTINE BRADEN, a washerwoman, ætat. 24, of good constitution, applied to me on the evening of the 27th May last, in consequence of pain in the bowels, and bilious vomiting, to which, she said, she had occasionally been subject for several years. Her pulse was 70, the tongue was furred, the bowels were regular. I gave her a saline aperient in a state of effervescence, with five grains of calomel.

May 28. I was informed this afternoon by her husband that the sickness still continued, that she has been subject to rupture for the last ten years, and that she had worn a truss during that time. I went immediately to see her, and found her still vomitting, pulse regular, tongue furred, bowels costive; and on examination I discovered that she had a small femoral hernia. She said she had worn a truss, but the spring had been broken for sometime, and that the rupture frequently came down, but she had no trouble in returning it, until the morning on which she applied to me. She had been working all the night, and about eleven o'clock in the

morning the rupture became very painful, when she tried to reduce it without success. She continued washing until four o'clock in the afternoon, when the pain and sickness became so severe as to compel her to decline the work, and she then applied to me. The calomel and aperient medicine which she had taken the day previous had produced no effect on the bowels. I tried the taxis for some time ineffectually. Ordered cold vinegar and water to be applied constantly to the tumour. Enemas to be repeated every two or three hours. Croton oil, with infusion of Senna, to be given every two hours.

Seven P. M. vomiting continues, bled her to syncope; again tried the taxis without success. Twelve P. M. vomiting rather relieved, had passed some copious feculent matter along with the two last enemata. Ordered her to continue the aperient medicine.

28. Seven A. M. Sickness continues, pulse regular, tumour hot and painful to the touch, abdomen tender and tumid. The bowels had not been moved any more. I did not repeat the taxis, but told her that an operation was the only means of relieving her; to the performance of which she immediately consented. Accordingly, with the assistance of my friend, Mr. W. Paulson, I proceeded to the operation, the steps of which it would be useless to detail. On opening the sac, we found a portion of omentum of a very dark colour adherent to the sac, and enveloping a small knuckle of intestine, quite black, and, on liberating the stricture, I pulled a portion of intestine out of the abdomen, in order to ascertain its state. It was quite healthy. The part at which the stricture occurred, appeared as if a cord had been firmly tied round the intestine, ileum, or jejunum, leaving a white mark. We decided that it would be unsafe to return the intestine, and brought the integuments loosely over it. After putting her to bed, we gave her an anodyne, and ordered enemata to be administered in a few hours after the operation. Ten P. M. Sickness abated; pulse 80, bowels tender and swollen, no evacuations. Ordered fomentation of poppy heads aud chamomile, to be continued to the abdomen for three hours.

30. Sickness quite removed, bowels still not evacuated, pulse 80, abdomen not so tender. Habeat Ol. Ricini. oz. ss. 4 tis horis ad tres vices. On examining the wound, the intestine was found exceedingly distended and black, and beginning to slough.

31. Had slept well; pulse regular; appetite improving; bowels unrelieved. A small orifice was observed in the situation of stricture, through which some liquid feces were passing.

June 1. Orifice in the intestine much enlarged and the sloughing portion separating very fast. A very large quantity of fetid feces passed through the opening. She now began to improve in her general health, and the sloughing intestine was soon entirely removed. Large quantities of green liquid feces frequently passed by the wound, and she parted with liquids very soon after they were taken, so that her strength did not increase in proportion to her appetite. In this state she continued until I observed in *the Lancet* of the 25th of May, a clinical lecture by Baron Dupuytren on artificial anus, with a description of the enterotome (from the Greek εντερον, intestinum, and τεμνω seco, scindo.)

I named the operation to her, and found her quite willing to submit to any thing that was likely to relieve her from the miserable state in which she existed, as she had had no motion per rectum after the operation, and the upper part of the thigh was excoriated from the discharge which was constantly passing through the wound. There was no difficulty in finding the lower portion of intestine, or that connected with the anus, as the portion of healthy intestine we had drawn out of the abdomen had become adherent, and the part from which the slough had separated became everted, and discharged an abundance of white mucus. This external portion had formed a very considerable curve, so that it became very difficult to trace the continuity of the canal into the abdomen. In order to obviate this, I made a small opening sufficient to admit a probe into the most convenient part of the intestine, and, with the finger introduced into the abdomen through the artificial anus, or upper portion of intestine, I could distinctly feel the probe introduced through the artificial opening, having, apparently, only the thickness of two portions of intestine between my finger and the probe. I then came to a decision as to the probable success of an operation.

I had an instrument made according to the directions given, and accompanied by Mr. Evans of Belper, and Messrs. Furniss and Paulson of Mansfield, we proceeded to operate on the morning of the 22d June at 11 o'clock. To prevent repetition, I would refer the reader to *the Lancet* for the 28th of May for a description of the instrument, and the Baron's mode of operating.

We found, in consequence of the curve before described, that the blades of the in-

strument could not be brought into contact o as to destroy the portion seized between them, within the abdomen, without laying this curved portion freely open, and this was effected by introducing the fore-finger of the left hand into the artificial anus, and then passing a blunt pointed bistoury along a director through the artificial opening made into the gut, until it came in contact with the finger. The instrument was conducted outwards by the point of the finger dividing the whole of the intervening substance, as in the operation for fistula in another space between the artificial anus and the orifice through which the bistoury was indroduced—being nearly three inches. The divided parts, as we anticipated, from the highly vascular state of the gut, bled freely, but the bleeding was soon arrested by pressure, and the application of sponges dipped in cold water. The blades of the instrument were introduced with great facility. She did not complain of much pain when the instrument was first screwed tight, but in a few minutes she was seized with retching and sickness, accompanied by pain not in the wound, but, apparently where the mesentery is attached to the spine.

I gave her gtt. 50 Tinct. Opii. This was rejected almost immediately. She then took two grains of opium in a pill which she retained for some time; I staid with her an hour, by which time the hemorrhage had quite ceased.

Two o'clock P. M. was sent for, as very alarming hemorrhage had taken place. I threw off the cloths, and found a very large quantity of blood in the bed. The dressings were taken off, and cold and pressure soon succeeded in abating the hemorrhage. The wound was then dressed with lint, dipt in cold water. The pulse was scarcely to be felt, and she was in a state nearly approaching syncope. I gave her a little brandy and water, which was rejected immediately. She had retched many times during my absence, but had retained the opium pill. I ordered her the following mixture.

R. Tinct. Opii. m. xl.
Spt. Œther Nitric dr. iii.
—Lavand. Comp. dr. ii.
Aq. Pur. oz. v.

Fiat Mist.
Sumat coch. ii. ampl 2da q.
horâ urgente dolore

11 o'clock P. M. Sickness continues, pain rather relieved, pulse 90, full, abdomen tender. Fomentations to be applied for some time.

23. 7 A. M. Has had no sleep, sickness continues, pulse 110, full, pain relieved, tongue furred, thirst, no distension of the abdomen, anorexia; bilious matter passing through the wound. Pergat in usu medicamentum.—2 o'clock P. M. sickness relieved, had retained some gruel.—11 P. M. feels much better, thirst abated, pulse 110, softer, tongue cleaner, appetite improved.

24. 8 A. M. Had passed a good night, pulse 90, soft, tongue nearly clear, appetite good. Habeat Ol. Ricini oz. ss. statim. 8 P. M. Had passed a large quantity of feculent matter through the wound, mixed with the castor oil, no evacuations per rectum.

26. Health improved, allowed light pudding, and wine and water, enterotome much looser; feculent matter still passes through the wound.

28. Health much improved, says she has a feeling of something passing lower down than she has done since the operation for hernia, enterotome very loose, but would not come away, a much less quantity of fluid passing through the wound.

30. Enterotome came away in the night bringing along with it $2\frac{1}{2}$ inches of intestine enclosed between the blades, a little feculent matter still passes through the wound, no motion from the rectum. Ordered her an enema, to be repeated every three hours. July 8 A. M. Some scyballa passed per anum, along with the gruel; very little comes through the wound. Enemata to be continued. Habeat Ol. Ricini oz ss. 4 tis horis repetend: donec alv: bene respond:—8 P. M. A large quantity of feculent matter mixed with castor oil passed through the wound, no natural motion.

2. Passed three motions during the night by the natural passage, from this period she has had regular motions, not less than twice a day, without any assistance from medicine, health good. The mucous membrane of the external portion of intestine becoming more and more everted and painful, and believing it impossible that the wound would heal while it remained, I thought it better to remove it, which, with the assistance of two friends I proceeded to do on the 8th. There was some bleeding from the division of the external *pudic* artery; but after separating the intestine from its connexions, and dividing it close to the tendon of the external oblique muscle, the branches of the mesenteric artery *bled very freely*, and we found them very difficult to secure by ligature, however by introducing the finger within the ring into the abdomen, and keeping up constant pressure for more than an hour, the hemorrhage ceased, but not until the patient had become exceedingly

exhausted from loss of blood. By the administration of a little brandy and water frequently repeated, she rallied in a few hours. In the afternoon she complained of great pain, skin hot, pulse 120, thirst.

Sumat Mistur Anodyn olim prescript; coch. ii. Majora 2da quaq. horâ urgente dolore.

9.—7 A. M. Past a restless night, tongue furred, thirst, pulse 110, abdomen tender and painfnl. Had vomited some bilious matter twice or three times, no motion per rectum, feculent matter mixed with blood passed freely through the wound. Habeat. Ol. Ricini. oz. ss. 3 tis horis repetend: donec alv: bene respond: adhibeant enemata 3 tiis horis. 10 P. M. Bilious matter mixed with castor oil came feely through the wound, no motion per rectum; had passed a large quantity of urine, which she said afforded her great relief, pulse 100, tongue cleaner. Purgat, in usu enematum. Omitt. Ol. Ricini.

10. Bowels have been moved three times in the night, pulse 80, tongue clean, appetite improved, wound healthy. Apply a linseed poultice, a little fluid still escapes from the wound.

Aug, 10. Wound healed, with the exception of a fistulous communication with the gut, which allows a very small quantity of liquid to escape occasionally. I tried several methods, with a view of causing the wound to fill up, but they were all unsuccessful. She now wears a truss, the pad of which is covered with water proof cloth; and is able to go about having walked more than a mile and back several times, and she can attend to her domestic affairs.

Sept. 5. Health very good, sinus more contracted, a little fluid still occasionally escapes, bowels very regular. Indeed she is altogether in a state of comparative comfort.

Mansfield, Sept. 10th, 1833.

[*Lancet, Sept.* 1833.

Note.—We shall look for, and insert in a future number, the admirable lecture by Baron Dupuytren, alluded to in the above case. —*Ed. In. Jour. Med. Science.*

FRENCH OPINION OF ENGLISH SURGERY.

The ex-minister of the ex-Charles X., D'Haussez, in his late notes on Great Britain, makes the following remark on the state of English Surgery:—"It is said that Surgery has attained a high degree of perfection in England, and in support of this assertion, the names of two very *rich* Surgeons are cited. It would be impossible to deny to these individuals the possession of rare talents, if we estimated the latter by the immense fortunes they have acquired". The circumstances noticed by Mr. Wardrop in his introductory lecture, have not, it would seem, escaped the sarcasm of a foreigner who is not even a member of the medical profession. "Mr. Wardrop observes (*vide* LANCET, July 6th)—"In this metropolis the *capacity* of a man is too often measured by the *value* of his private practice. If you enquire what any individual is doing here, and how he is succeeding, the answer you will receive will be a statement of the supposed amount of his professional income. But if a similar question be asked of an eminent man abroad, you will receive a very different answer; you will be told of some advancement he has been making in scientific pursuits. By nothing is the scientific foreigner more struck when he visits this metropolis, than the evidence of a *trading* spirit amongst the members of the medical profession."—*Lancet.*

RHINOPLASTIC OPERATION.

A young man consulted M. Dupuytren some time ago, respecting an eating ulcer which had already destroyed a considerable portion of the point and septum of the nose. Under mild treatment the sore was healed; but a disgusting deformity remained in consequence of the loss of substance.

M. D. resolved to attempt its restoration; and in this case he cut the flap from the upper lip, which was unusually thick and long. Having accurately marked out the dimensions required, an incision was made through one half of the thickness of the lip, and the flap was then dissected or sliced off, the inner surface or face of the lip being left uninjured. The flap was now "retourne" by twisting its pedicle from right to left, and secured to the raw edges of the nose by hair-lip pins, and the twisted suture. Small plugs of lint introduced beneath served to support it. The wound in the lip was then brought and kept together by the same sort of suture. On the 6th day the pins were removed from the lip, and on the 9th from the nose. The flap had united to the septum and point of the nose.

The new appendage was not however very handsome, for the neck, or pedicle of the flap, where it had been twisted round, formed a disagreeable protuberance, and the patient was anxious to be relieved of this annoyance. The Baron would not consent to do any thing, as he expected that it might become smaller and smaller in course of time. Upwards of a year having elapsed, and the deformity being little changed, it was deemed advisable to accede to the patient's wishes: the pedicle was divided, and all the irregularities pared carefully away. The cure ultimately was a most satisfactory one.—*Medico-Chirurgical Review, October* 1833.

OBITUARIES.—Among the deaths of Medical Gentlemen who have in their days ac-

quired considerable reputation in the profession, we are sorry to have to record that of Dr. Darwall, of Birmingham, who expired a short time since, in consequence of an injury received a few days previous, while engaged in making a post-mortem examination. We had written this notice for insertion in our last number, and have since, we are sorry to say, found occasion to add to it an announcement of the decease of Mr. Alcock, of New Burlington-Street, London, who died a few days since, much respected for the extent and variety of his professional acquirements.—*The Lancet, August* 1833.

THE INDIA

JOURNAL OF MEDICAL SCIENCE.

CALCUTTA APRIL 1, 1834.

Our readers will observe that a change has taken place in the mechanical department of this Journal. Several friends, in common with ourselves, felt that there were defects in the typography which it was very desirable should be rectified. Much then as we regretted having to terminate our connection with a press that, apart from the circumstance of its not finding it convenient at the time to devote newer types to our work, gave us every satisfaction; the necessity of the case rendered it imperative upon us to have recourse to some other quarter. Accordingly our present number has been got up elsewhere, but as yet we have not come to a final arrangement, as there are several points to be taken into consideration before we can, with prudence, enter into such. Suffice it in the meantime to state, that there ar e difficulties in the way of getting up periodicals like this in Calcutta, which none can form a just conception of unless they have experienced them. We do not mention this fact in a spirit of egotism, but rather as affording a claim to some indulgence on the part of the liberal reader, for errors which are unavoidable, but which, there can be no doubt, will lessen as we proceed.

Mr. Atkinson, in his paper *On Popular Notions on Health and Disease*, has taken up a subject which admits of being enlarged on; a hint which, we trust, he will not forget, since the theme cannot be in better hands. Science, like religion, is often clouded by superstition, and he confers a benefit on mankind who exposes its fallacy in either. Though Mr. Atkinson, as Asclepiades and Celsus did before him, ridicules a morbific principle and critical days, yet must it be allowed with Sir Roger de Coverley, that much may be said on both sides. As there is an evil and a good principle constantly at war with each other in the moral constitution of man, we see nothing unphilosophical in supposing that there may be something analogous in his physical nature. If the vis medicatrix naturæ be granted, why not a peccant or morbific matter, or principle, or humour? Professor Frank contends for it in eruptive fevers, and Mason Good concurs that so far as it relates to the exanthemata, the opinion is sufficiently correct. Then again as to critical days, although we would not superstitiously rely upon mere authority, yet is it much in favour of the critical days to say that Hippocrates, Galen, Sydenham, and Cullen were on that side of the question. 'Opportet omni cura et diligentia (observes the learned and philosophical Dr. James Gregory) distinguere inter res observatas et auctoris de iis judicium.' Applying this rule to the Hippocratic doctrine of critical days, we must always bear in mind the character of the first promulgator of the same. Where was there ever a closer or more cautious observer of nature than Hippocrates? Granting his probable leaning to the Pythagorean doctrine of numbers all the weight it merits, we must bear in mind that Hippocrates reasons on critical days not as a matter of theory, but as a fact. "I am of opinion (writes Dr. Cullen) that the doctrine of the ancients, and particularly that of Hippocrates, on this subject, was well founded, and that it is applicable to the fevers of our (*the English*) climate. I am of this opinion, *first*, because I observe that the animal economy both from its own constitution and from habits which are easily produced in it, is readily subjected to periodical movement; *secondly*, because in the diseases of the human body, I observe periodical movements to take place with great

constancy and exactness, as in the case of intermittent fever and many other diseases." Then let us not forget De Haen's rigid analysis of Hippocrates' own fever reports, in which out of a large number of terminations of fever, more than two-thirds happened on the critical days. This then may be taken as the general rule, for although there are many instances in the writings of Hippocrates of terminations happening on the sixth day, yet he did not therefore reck on it among the crical days. Dr. J. Johnston, writing of the bilious remittent of Bengal, says, " the unfavorable terminations were generally between the third and seventh day, though in some cases I have seen it go on to the fifteenth." Much ridicule has been occasionally heaped on the doctrine of sol-lunar influence, but we suspect that no man who has passed a few years in India will scout that doctrine. Of the truth of this solar or lunar influence or both, we have seen many instances; and in which the individuals at certain periods of the moon were sure to get an accession or a return of fever. This was particularly exemplified in cases of Sumbhulpore and Arracan fever, in such patients as were fortunate enough to escape the attack with life, and nothing but a change of climate can break through this habit of morbid periodicity into which the constitution appears to fall. The subject is one which deserves a more careful and elaborate consideration than we can at present bestow upon it.

Mr. Atkinson and his French friend are rather severe upon snuff-taking. We will venture to say that a pinch in season is highly gratifying. Of course it stands to reason that people are not to make snuff boxes of their noses. To *excess*, in that or any other mode, we are as much opposed as any one can be on just grounds; but there are occasions when the brain or the nose, or both, stand in need of a gentle stimulant; and as it would look rather affected in a gentleman to be ever and anon giving a pouncet box or a vial of sal-volatile to his nose, what so convenient or becoming as a pinch of King's mixture? But how is it that our friend has passed over altogether the horrible excesses that are committed with other forms of the Nicotian weed —pursuits that end in smoke and a 'curious perfume?' Here indeed is a field for the reformer,—but '*clouds*, doubts, and shadows, hang upon it.' There are several vulgar errors or superstitions in science which might be touched upon, but which we have no time to discuss. Thus in surgery it is a common idea that in sawing through the bone in amputation there is exquisite agony occasioned—whereas if the bone be sound, there is no pain experienced at all; and in the practice of physic, *stuff a cold* is a well understood old rule, while it is on the other hand an approved professional aphorism in febrile and inflammatory complaints, to use in the first instance a lowering and spare, or what the faculty call the *antiphlogistic* regimen.

Such of our readers as are not well versed in the learning of the Hindoos, will read with interest T's translation from the Soosrootuh, or Medical Shaster. For our own part the perusal of it gives us no great hopes of learning much that is original or valuable from this recondite work. We feel extremely obliged to T for affording us an opportunity of judging for ourselves on a matter respecting which we could not venture to come to a just decision without some such guide. We have often heard some of our native friends declare that their medical shasters contained treasures of knowledge of great price. On such occasions we were in the situation of one who is in company with a great traveller that has wandered through lands where *he* has never been—and listens to desultory exclamations at the wonders he has witnessed. Nothing precise being placed before the mind, the impression left is vague and unsatisfactory. T on the other hand is the honest traveller who gives us a faithful and unvarnished journal of what he has seen, and places matters before us so as to enable us to judge for ourselves. If the remainder of the Soosruttuh resemble the specimen of which T has favoured us with a translation, we leave it to our readers to say whether such lore is likely to make a man theoretically even a good practitioner. We doubt not that the Soosroottuh may contain some sensible remarks upon health, disease and remedies; but is it not exceedingly probable that the grains of knowledge are smothered under bushels of chaff, such as the rigmarole of verses and deprecations above

presented to us? And yet, to teach such stuff, many thousands of the public money are yearly expended, which might be devoted to so much better purpose, that cannot fail to be obvious to the intelligent reader.

Mr. Raleigh's summary of Hospital cases for February is no less interesting than that which preceded it. The remarks on the nature and treatment of Dysentery are highly important. Mr. Raleigh, in common with the most accurate observers in this country, considers Dysentery to consist of inflammation of the mucous membrane of the large intestines. This being the case, he justly ridicules the idea of there being any *specific* for a disease so variable in degree, requiring in one stage the most active depletory measures, and in another remedies of an opposite character. It will be new to some of our readers to learn that Liver disease is by no means of very common occurrence in Bengal, and yet, as far as our experience goes, such appears to be the fact, especially as compared with the upper provinces. Indeed, on the whole, Bengal is perhaps more healthy than it generally has the credit of. This remark applies particularly to Calcutta, where the chief thing complained of in relation to climate is its variableness, the changes being sometimes very sudden. This, however, is an inconvenience that can be guarded against, less or more, by the experienced. One grand point in favour of Calcutta is the average coolness of the nights throughout the year, which give nature the necessary refreshment after the damp heat of the day. There can be no doubt that Calcutta might be rendered still more healthy by drainage and an improved system of conservancy, and it is highly gratifying to observe that our worthy chief magistrate is giving the subject his serious consideration. It is to be hoped that his exertions will rouse the Mahratta-ditch-men to do something for themselves in the matter. Our cursory observations of course have reference only to the European quarters of Calcutta, for we fear that a very different tale remains to be told respecting the streets exclusively occupied by the natives, which are a great deal over-built and over-crowded, and filthy to a degree. We believe that great numbers are swept off annually in consequence of diseases induced by bad food, clothing, and lodging. We need not be surprised then that cholera occasionally proves so fatal to so many.

In respect to bad food, it is surprising to us that no municipal regulations, so far as we are aware, exist to check the evil. In the Calcutta great meat bazar there is no one to prevent the sale of bad meat or bad fish: and of the latter, enormous quantities are sold at night to the poor, in different bazars, in a state of offensive decomposition. While the fish is fresh and good, the poorer classes cannot afford to purchase it, after it is gone bad, they are glad to get it even in that state rather than not at all. The remedy would be to destroy *all* the bad fish, and then the sellers would be obliged to sell at prices within the ways and means of the poor. As the dealers know that under the present, system they can sell *all* their fish, however bad it may become, they are careless on the subject.

Mr. Raleigh alludes to a circumstance which cannot fail to have been observed at one time or other by every member of our profession; viz. the objections that the indigent have to become patients of an hospital. This objection, we believe, is not confined to the poor. In some respects it is only what might be expected; and with reference to prejudice that, always, is in proportion to the ignorance of the party. In the first place, all men dislike to quit a home of their own, if they have one, be it ever so homely. In the next place though a man be poor, he may not like to have even his diseases ministered to on a footing of charity. Thirdly, there is a feeling of restraint and discipline associated with the idea of an hospital, and we know that to certain minds restraint and discipline are mighty disagreeable. Fourthly, some people have a notion that a hospital is but another name for a pathological experimental laboratory. Indeed, the supposition that medical men experiment coolly upon human beings for experiment's sake, is humiliatingly prevalent in quarters where its existence is to be regretted, and the prejudice has been fostered even by distinguished unprofessional writers. It would be easy enough to shew the erroneousness of such a supposition, since experiment is but the last resource of the Physician's hope, when the customary means disappoint or totally fail. We could also shew that in experiments that incur risk, medical men generally

begin with themselves. There is also a kind of superstitious feeling in regard to dissection which operates upon the minds of some; and lastly, as Mr. Raleigh justly remarks, the feeling of reluctance to going into hospital is kept up by the circumstance of sick persons being frequently sent to such institutions in a dying state, or when any aid or treatment comes too late. It is not only thoughtless to send patients in a sinking or dying state to hospital, but it is decidedly cruel. It is adding thorns to the dying man's pillow, and it pro duces a bad impression on the living. We had nearly forgotten one circumstance, which is of much weight in the mind of a person requiring to enter an hospital—and that is having to lie in an *open* ward. This, at any rate, is a most natural feeling of delicacy—and to a man suffering under severe illness is a serious evil; but we fear it is unavoidable, although we see no reason why a hospital might not be constructed so as to give a degree of privacy to each patient; but this will, by the admirers of the old system, be considered Utopian. To people not in circumstances to meet the expense of proper treatment in private life, an hospital furnishes incalculable advantages. There they are sure of the very best medical attendance, and all their wants are duly ministered to. The very things to which they object, that is to say, the restraint and discipline of an hospital, are the pledges of their own well being and restoration to health while under its roof. In regard to dissection, on the other hand, the examination of a dead body for the purpose of verifying the prognosis in life, or of discovering in an obscure case the cause of death ought not to be so called; for there is no unnecessary handling of the dead, no disfigureme n t and no irreverent interference. Such examinations are always conducted with every respect to propriety, and are absolutely necessary for the extension of scientific knowledge and the benefit of the living. Those who can afford it ought always to pay a moderate sum for the defraying of individual charges, which has the effect too of relieving the mind of the industrious from the oppressive idea, of being indebted to mere charity for relief.

The *Physician* concludes in the present number his clear and able observations on the cure of Indigestion, and furnishes from pathological principles a key to otherwise extraordinary or unaccountable freaks of the human mind.

Dr. Mackinnon has favored us with a case of Hydrocele, in which the fluid apparently got lodged in the cellular tissue, causing high inflammation. It will always be found a good rule in hydrocele, not to inject when the serum does not flow freely through the canula. In such a case we would prefer endeavouring to excite the adhesive inflammation in the vaginal tunic by means of a seton or a tent.

In his short paper *On the effects of Iodine*, Dr. Fullarton has shown that the medicine may be used with advantage in enlarged liver. He does not appear to be aware that the peculiar effect of Iodine on the generative system has become so marked as to entitle it almost to the term pathognomonic. Caution, therefore, is to be observed in administering it in both sexes, as the mammæ in one, and the testes in the other, with less or more rapidity, decrease in size during its use.

A Review of Mr. Hutchinson's work on *Cholera Asphyxia* will be found in our preceding pages, to which we beg to refer for a brief consideration of the merits of the work.

In a preceding page will also be found a translation of a portion of the celebrated posthumous work of Berzelius, from which we translated the analysis of Tea given in our last. It relates to the vegetable alkalis, shewing the principles both of their composition and the mode of obtaining them, so far as those points are at present known. There is reason to believe that some of the vegetable productions of this country may be found to contain these alkalis in a sufficient quantity to make it an object to institute experiments, with a view of turning them to some practical use, and in compliance with the wishes of the Medical Board we ourselves bestowed some attention upon the subject. The nux vomica and cheyretta have been submitted to experiment. A new method of preparing Strychnia for pharmaceutical purposes (or rather a variation of the process hitherto pursued, for the

principle is the same in all, and leaves but little for invention) has be enattended with much success,and cheyretta undoubtedly contains an alkaline base, though we have not as yet been able to procure it in such a form as to be quite satisfied of its possessing peculiar distinctive qualities. It differs, however, from most of the true vegetable alkalis, in being very soluble in water.

To those of our readers who may be inclined to enter this not very difficult path of analytical chemistry, we recommend utility as the grand object of their researches. We know nothing so likely to give satisfaction to the individual who may be fortunate enough to achieve it, or to be of the greater benefit to the public, than the discovery of some alkaline base, in abundance and virtue, capable of being a substitute for Quinine. The expenditure of the sulphate of Quinia has increased so much, while the quantity contained in the cinchona bark is so small, that it is easy to foresee the death of the goose that lays the golden eggs, the total extinction of the trees that yield this valuable medicine. In such a case, it will be an object of no mean importance to discover in the jungles of the East something like a substitute for what may be emphatically styled the health restorer of the West. The mines of Potosi have been exhausted, and with the present drain upon this, beyond all compare, more valuable treasure, a few years will see it exhausted too.

In our last number we presented to our readers an able paper on French Surgery: in this, among our selections, is one entitled "French Opinions of English Surgeons," in which the *trading* spirit of our brethren is commented upon with much severity. The sarcasm is not unjust. English surgeons are looked up to, not according to their capacity for medical knowledge, but according to their capacity for obtaining their own objects; not according to their scientific merits, but according to the length of their purse; but is this the fault of the profession so much as that of the public?—We think not.

In France a man gains honour in the state, and esteem in society, according to the progress he makes in scientific pursuits; but in England the merest blockhead is raised to a 'bad eminence" by family interest, a solemn face, or some absurdity of manner. The quack, subtle, supple, reckless of consequences, and with his soul fixed upon "the main chance," getting money; enjoys more consideration, because he rarely fails to get richer, than the unobtrusive independent minded man of real talent. In fact, it is no wonder that many English Surgeons leave improvements in medicine to their compeers, who with more scientific knowledge than themselves, have less knowledge of the world: for English subserviency to riches, and English fondness for quackery are such, that should Esculapius himself "set up his pill box" in London, he must either have money in his pocket, or condescend to humbug, or to starve.

The fault, we repeat, lies with the public therefore, and not with the profession. The public does not delight to honour the medical profession and its followers. There is a general indifference to their grievances and drawbacks, and they are often begrudgingly remunerated for services the most anxious and even slavish of all others, and to the parties treated the most important. It will not therefore, be wondered at if the race of the Harveys, Sydenhams, Chesseldens, Smellies, and Hunters, should become extinct—and yet, it is to be hoped that in the age exclusively boasted of as that of the march of intellect, this may not become the case. If it should, it will be a dire consummation for the interests of civilisation and humanity. As matters stand, there are fewer prizes in the profession than any other. Policy would suggest that it ought to be otherwise.

In our February Number we noticed the prevalence of catarrh in Calcutta on so general a scale that it might be termed epidemic. We have had since ample proof of the correctness of this conclusion; for the disease now recognized as a genuine *Influenza*, has been running its course through families with great severity, although as yet we have not heard of any casualties from it. We shall feel extremely obliged to such of our readers as will give us any information on the following heads: The precise time of the appearance of the disease. The state of the weather at the time. In how many places it has yet appeared in India. What are the features that distinguish it from a com-

mon cold? What is the best mode of treatment? Is there any peculiar state of the weather from which Influenza may be predicated? Who are most predisposed to attacks of Influenza? Its pathological rationale. Casualties, if any, &c. &c. &c. Under the head *Influenza* in the Cyclopædia of Practical Medicine, there is a very well drawn up Chronological Sketch from thè pen of Dr. Hancock, a portion of which we subjoin, anticipating that it will prove interesting to our readers in general.

"I. We find no medical description of the epidemic catarrhal fever before the year 1510. 'It was called *coccoluche*, because the sick wore a cap close over their heads.' The symptoms of the disease, as it then occurred nearly resembled those which it has assumed in latter visitations, namely, severe pain over the eyes, sneezing, coryza, heaviness, difficulty of breathing, hoarseness, loss of strength and appetite, fever and harassing cough. Schenk says that physicians then looked upon it as a new disease. Its course seems to have been in a north-westerly direction, from Malta to Sicily, Spain, Italy, Germany, France, and Britain; and Short says, that 'it attacked *at once*, and raged over all Europe, not missing a family and scarce a person, and that none died except some children. In some it went off with a looseness; in others by sweating. *Bleeding and purging did hurt.*'

"In 1557, an epidemic of the same nature prevailed in different countries. Fonseca says that in this year it infested Asia, thence came to Constantinople, and having spread itself all over Europe, afterwards attacked America, its course being westerly. Mercatus asserts that 'before the beginning of autumn 1557, it attacked all parts of Spain *at once*, so that the greatest part of the population in that kingdom were seized with it almost on the same day.' Riverius has transmitted to us an account of this epidemic. Unlike that of 1510, it was fatal to many: in a small town near Madrid, Mantua Carpentaria, bleeding was said to be so fatal that two thousand patients died after it in September. At Alkmaer, in Holland, two hundred died of it in October.

"The Catarrhal epidemic fever of 1580 was distinguished by its complication with malignant fever or plague, as related by Forestus and Sennerius. The latter speaks of its ravages at the end of summer and the beginning of autumn over all Europe; in some parts of which as in Paris, it was the *precursor* of the plague. It was in Sicily in June, at Rome in July, in August at Venice and Constantinople, in September in Hungary and Germany, in October on all the Baltic coast, in November in Norway, in December in Denmark, Sweden, Poland, and Russia; its course being from E. and S. to W. and N. Mercatus says that it raged also in Spain, and destroyed not a few. Grand Cairo lost a prodigious multitude the same year by the plague. It is a remarkable fact, and ought not to escape our notice, that France appears to have been the only country in Europe affected that year by the plague; and it appears also to have been the first to be visited by the epidemic catarrh, its precursor so that Baldutius even dates its origin from France.

"The influenza of 1658, of which Willis has left us an account, visited Europe and this kingdom *suddenly* in April, and after excessive heat, in August was followed by a fatal epidemic fever.

"Sydenham and Etmuller have described the epidemic catarrh of 1675, which began in Germany in September, and in England in October. Malta was afflicted by the plague the same year, from which it remained free till the last severe visitation of this scourge in 1813.

"The epidemic catarrhal fever which raged during the autumn and winter of 1729, in the space of five months' time visiting almost every part of Europe, was very fatal in many large cities, such as Paris and London. Lœw says, that in the latter more persons died than at any one time since the plague of 1665, about one thousand being cut off weekly in September. In the beginning of winter it reached France. A few weeks after, it visited the upper part of Italy with great mortality. In February it afflicted Rome and the Rhine. Turin and Milan suffered extremely. It reached Naples in March, and after this disappeared.

"The influenza of 1732-3 is described in the second volume of the Edinburgh Medical Essays, and by Huxham; and was so far remarkable that it affected the mucous membrane of the alimentary canal as well as that of the organs of respiration. It spread over all Europe, and appeared also in America. It was first noticed about the middle of November in different parts of Germany. Edinburgh appears to have been the first place attacked in Britain, viz. on the 17th of December, and it raged at the same time in Switzerland, at Basle. It appeared at London and Flanders the first week in January; towards the middle of the same month it reached Paris and Ireland towards the end. Cornwall and Devonshire were visited about the beginning of February; few only were attacked at Plymouth, where Huxham practised, so soon as this; but in March it prevailed on all sides. In February Leghorn was attacked, and near the end of it Naples and Madrid suffered. New England in America was invaded by the distemper about the middle of October, which

travelled southward to Barbadoes, Jamaica, Mexico, and Peru, much at the same rate as it had done in Europe. It appears to have been at Paris early in the year. 'Elle se manifesta, dit de Jussieu, la suite de brouillards fétides, plus épais que les ténébres de l' Egypte.

"The epidemic catarrh of 1733 was followed by those of 1741 and 1742; the first described by Haller, and the second by Sauvages and Huxham. In 1743, towards the end of April, Huxham says that it was general in England, and in the spring spread over all Europe under the name of 'influenza,' or 'grippe.' This Epidemic was the *precursor* of the plague of Messina in Sicily the same year; and it was more fatal in the southern parts of Europe than in England, though it increased the deaths in London in one week to a thousand.

"The next remarkable visitation of the influenza was in 1762; and an elegant description of it is given by Sir George Baker, 'De Cartarrho Epidemico anni 1762,' who records its appearance in London about the 4th of April. Razoux, a physician of Nismes, has given an account of the same disease, which was epidemic in Europe generally in the spring. It attacked Breslau at the end of February; Vienna was visited in March, and Hamburgh in April. In Venice it was more fatal than in other places. It spared however, Paris and the greatest part of France; nor can we find any particular cause for this exemption. Nismes most probably was visited; and Webster says that 'Toulon lost one-third of its inhabitants by an epidemic in 1761.' The influenza of 1762 appeared sooner in London than in any other part of England, namely, the beginning of April. It was not observed in Edinburgh and Dublin till May, but in June it was general and severe, according to Sir G. Baker, being seen no where earlier than February nor later than July. It had prevailed in America the preceding year. It was not till July that it attacked the British sailors in the Mediterranean. It was immediately followed in London by an epidemic dysentery, which raged till November. While the influenza prevailed, the deaths in London scarcely exceeded the usual number. In Manchester they were even fewer than common; and at Norwich far more died of it than fell victims to the *more severe* influenza of 1743.

"The next epidemic catarrh, in order of time, was that noticed in London and different parts of the nation by Dr. Fothergill and some of his friends in the latter end of the year 1775. It was observed also in France, Holland, and Germany, and was supposed to be more fatal in those countries than in Britain.

"The influenza of 1782 was general over England, Scotland, and Ireland, between the months of May and July inclusive. A full account of it is given in the second volume of Memoirs of the London Medical Society, by Dr. R. Hamilton, which is the ground-work of the article 'Influenza' in the Edinburgh Medical and Surgical Dictionary; an account is also given in the first volume of Medical Communications by Dr. Gray, compiled from papers in the British Museum, which is the basis of a like article in the Cyclopædia of Dr. Rees. (See also the third volume of Transactions of the College of Physicians London.)

"The influenza of 1782 seems to have pursued a course from the east, not very different from that of the epidemic cholera which is now (1832) displaying its ravages in Great Britain and France. It is reported to have broken out in September 1780, and to have become very general in the crew of the Atlas East Indiaman, whilst that ship was sailing from Malacca to Canton. When the ship left Malacca there was no epidemic disease in the place; when it arrived at Canton, it was found that at the very time when they had the influenza on board the Atlas in the China seas, it had raged at Canton with as much violence as it did in London in June 1782, and with the very same symptoms. In October and November 1781 it appeared in the East Indies, and was said to have attacked the British army while it was besieging Negapatam in November 1781. Its progress is stated by Webster to have been from Siberia and Tartary westward. At Moscow it prevailed in December 1781; at Petersburgh in February 1782; and it was traced to Tobolski. It was in Denmark in the latter end of April. From the shores of the Baltic it spread to Holland and the Low Countries, and thence to England. London was said to be attacked sooner than the west and north; Ireland a few weeks later and the south of Europe later still; for it prevailed in France in the months of June and July, in Italy in July and August, and in Portugal and Spain in August and September; seldom continuing longer than six weeks in any place.

"The influenza of the spring of 1803 afforded an occasion for collecting a great number of notices from different parts of the country on the subject of this epidemic. The London Medical Society set a laudable example by proposing a set of queries to its corresponding members in a circular letter; and the sixth volume of 'Memoirs' contains reports from nearly sixty practitioners in England, Scotland, and Ireland, as to the date of its first appearance, its symptoms, treatment, &c. in their respective neighbourhoods. Dr. Beddoes also interested himself very zealously on the same occasion, and procured various testimonies from his friends and others, which to the number of one hundred and twenty-four are inserted in the ninth and tenth volumes of the 'London Medical and Physical Journal.' These documents contain a mass of very useful information. This epidemic was observed at Paris and in other parts of France and in Holland some weeks before it appeared in London; and Dr. Bardsley says, 'the same length of time was occupied in its progress from the latter city to Manchester.' Its course seemed to be from S. to N. It was in Cork and Dublin before it reached the north of Ireland, immediately after a S. E. wind. An

epidemic ophthalmia followed it in France, and a severe dysentery, such as had not been known for thirty years, in some parts of the United States, which it visited the same spring. It was observed to be *epidemic* in Sussex, and some of the counties in the S. W. as early as February; in Shropshire, Nottinghamshire, &c. in March; in Yorkshire and Lancashire in April; and at Sunderland in May. It was evident that there was a degree of progressive movement northward, by marking the time when it was at the height in each place; yet many of the accounts above alluded to inform us clearly that sporadic or solitary cases exhibiting the true characters of influenza, occurred in several places long before the disease became established, so as to manifest a universal tendency to that form of complaint over the country, in some cases weeks before it was quite developed. It is worthy of notice that this has been remarkably the case with the epidemic cholera. Dr. Gray observes that, in 1782, a complaint, similar to the influenza, was taken notice of in some parts of the kingdom *several months* before that disorder made its progress through it.

The influenza of last year (1831,) though generally mild in its character, was almost universal; for it would seem to have prevailed in both hemispheres in the same year. Accounts have been received of its appearance in India as well as in the United States of America. In many places it has been the precursor of the epidemic cholera. About a mouth before the latter disease broke out in Warsaw, it prevailed in that city. It also swept over great part of England, Scotland, and Ireland, in the spring and autumn, and preceded the *milder* visitation of epidemic cholera which many parts of Great Britain experienced the same year. Late in the autumn it attacked Paris, the south of Spain, Gibraltar, and Italy, with more severity than it did the British Islands. At Rome it was said to occasion great alarm. It has certainly skipped over many countries of Europe in its march from Poland to France through England, so far as we can judge negatively from the want of official reports; but, with this exception, it has pursued a course not widely different from that of similar former epidemics, and has proved to be a true herald of the epidemic cholera in many places."

"The two most precious things on this side the grave are our reputation and our life; but it is to be lamented that the most contemptible whisper may deprive us of the one and the weakest weapon of the other."—LACON.

If you wound us do we not bleed? was the Jew of Venice's natural question—and shall a whole profession, if assailed, find no defender? Of all men it behoves an anonymous writer to measure well his assertions, and avoid offensive generalities, for he resembles somewhat a a man who carries a loaded air-gun which he occasionally fires off for his own amusement, and perhaps unintentionally wounds his neighbours.—In the *Calcutta Literary Gazette* of the 8th February, in one of a series of well written papers, a writer under the signature of "J" in a very ingenious Essay indulges in the following remark:—

"What an extraordinary thing it is that scepticism should prevail to a greater extent amongst medical men than it does in any other profession. I should have thought that they who were most conversant with the Creator's works, and more especially with his master-piece, the human frame, would have been the last to attribute the Creation to blind chance. The construction of the human eye, alone, in the opinion of Paley, was sufficient to refute such a supposition, and he made it the ground-work of one of his first and strongest arguments for divine agency—such anomaly is man that the best opportunities often produce the least advantage!"

It is related of Charles the Second that he propounded the following problem to some persons deemed wise in their day and generation. "What is the reason," enquired the merry monarch with that gravity which he could so readily assume, "that if you place two vessels brimful of water in a pair of scales so as exactly to balance, and put a bream fish into one of the vessels, it does not in the least disturb the equilibrium of the balance?" The courtiers were sorely puzzled to account for the phenomenon, until at length, one of them who appeared to reflect seriously on the matter, said, "Please your Majesty, I doubt the fact." In short, the whole thing was a jest of his Majesty's as he candidly confessed. Now "J" will allow us to doubt the fact which he has so confidently asserted. An opportunity was afforded him of confessing the joke, for the writer signing himself *Medicus* took up a defensive position for his brethren in the *Literary Gazette* of the 1st March. "This indeed," observes our brother Medicus, "is a grave charge—but is it true?" And what was the reply of the Essayist to this appeal? Unless our readers are already cognizant of it, they would not, we suspect, very readily guess it. The Editor intimated in a note that he had shewn the defensive letter of *Medicus* (by the way a very courteous and gentleman-like communication) to the author of the Essay on the human face, but that he *declined entering into any controversy on the subject.*

This, to say the least of it is tolerably cool conduct. It is a cavalier-like mode of dealing with his fellow men. In the first place, the writer asserts positively, and expresses his wonder at the assumed fact, that there should be more infidels among the medical profession than in any other; and then when mildly invited to prove the truth of his allegation, he deliberately turns on his heel and declines to enter into any controversy. We re-regret exceedingly that a writer of no common talents and acquirements should have brought such an unjust and untenable charge against an honorable body of men, to whom reputation is every thing.

"The candid Christian," says the pious Dr. Blair, "never lends an open ear to those defamatory reports and dark suggestions which, among the tribes of the censorious, circulate with so much rapidity, and meet with such ready acceptance. He is not hasty to judge, and he requires full evidence before he will condemn. * * * How much soever he may blame the principles of any sect or party, he never confounds under one general censure all who belong to that party and sect. He charges them not with such consequences of their tenets as they refuse and disavow. From one wrong opinion he does not infer the subversion of all sound principles. * * * He judges of others according to the principles by which he would think it reasonable that they should judge of him. In a word, he views men and actions in the clear sunshine of charity and good nature, and not that dark and sullen shade which jealousy and party-spirit throw over all characters."

Now we do not give this quotation in an invidious spirit, nor infer that "J." was actuated by uncharitable motives: far from it. We cannot indeed help suspecting that the whole paragraph was a sort of slip of the mind, not unkindly intended. An impression was perhaps derived by the writer from some source not well pondered. Be that as it may, we take up the question not in a hostile but in a defensive, and, if he will credit us, a friendly spirit. A slur has been cast upon the profession to which we belong, and it becomes us to remove the stain if we can; for, if uncontradicted, many might suppose silence to imply concurrence in the correctness of the injurious allegation. What we chiefly blame him for is not having either justified or withdrawn his charge. If he had good grounds for urging it at all, candour demanded that he should produce them; if he felt that he had rashly made too sweeping an assertion, candour equally made it imperative upon him to confess so. It is not enough on such an occasion to say, I will have no controversy; the declaration should be, I will not commit injustice, or, having unintentionally committed injustice, I will not obstinately adhere to it.

"A negro has a soul to be saved—your honor."—Yes, and medical men have a character to defend when assailed. Take from them the very jewel of their lives,—a conviction of their being religious,—and what security have society in trusting their dearest interests to them? *None*, positively none. This, then, is a most important question; so much so, that were a friend or one who asked our advice to say "my medical attendant, I find, is a downright atheist"—then our counsel most solemnly would be, "If you have indubitable evidence of that, have done with him—for you have no security for your domestic honor and peace." But, as Charles the Second's friend said, we doubt the fact; for thoughtless and stupid must be the man who in all the machinery of the human body, in the exact adjustment of its several powers to the great purposes of life discerns not the hand of adorable wisdom, as well as of infinite goodness.

The Essayist must have procured his knowledge of the asserted fact of the scepticism of medical men in either of two ways or both,—from personal observation, or the representation of others. Granting this to be correct, then would come the natural question, is the author of age and experience sufficient to have, by personal observation, come legitimately to such a conclusion; and if he is not, what are the representations, oral or recorded, upon which he grounds his opinion? Let us know them in order that we may examine their validity.

We beg to enter a general disclaimer against a general and gratuitous assertion. We do not believe it. Experience and probability are against it. I think (says Addison) we may lay this down as an incontested principle, that chance never acts in a perpetual uniformity and consistence with itself. If we should always fling the same number with

ten thousand dice, or see every throw just five times less, or five times more in number than the throw which immediately preceded it, who would not imagine there is some invisible power which directs the cast? It needed no Paley to demonstrate that the human body owed its formation to a diviner source than chance; for many centuries before he was born the contemplation of this, Nature's master-piece, led the minds even of heathens to the contemplation of and belief in Nature's God. But superadded to the light of nature, we have the blessed light of revelation, and none but the most besotted intellect can withstand the effect of both. We do not contend for this as a merit but as a necessity. It cannot be otherwise. Quicquid (says Cicero) est illud, quod sentit, quod sapit, quod vult, quod viget, cœleste et divinum est ob eamque rem *æternum* sic necesse est.

It is not probable that the spectator of a splendid and moving tragedy admirably represented in all its parts, would be moved to indecorous mirth and laughter. As unlikely is it that one admitted to the privilege of beholding the human structure in all its hidden and wonderful parts, its springs, its livers, its organs, its channels, its receptacles, its machinery altogether, in short; that microcosm which is the most astonishing product under the heavens, should, instead of finding additional cause therein to adore the unutterable power and wisdom of the Creator, derive from it occasion to make him doubt the very existence of the SUPREME! This we conceive is not merely improbable but impossible. From Galen to Boerhaave the conviction of life and motion must be the same; for, observes the latter, 'in DEO querendus est origo, si aliam putamus, fabulamur."

But there were many parts of which the old anatomists did not know the certain use: but, states Addison—

'As they saw that most of those which they examined were adapted with admirable art to their several functions, they did not question but these whose uses they could not determine were contrived with the same wisdom for respective ends and purposes, Since the circulation of the blood has been found out and many other great discoveries have been made by our modern anatomists, we see new wonders in the human frame, and discern important uses for those parts; which uses the ancients knew nothing of. In short, the body of man is such a subject as stands the utmost test of examination. Though it appears formed with the nicest wisdom, upon the most superficial survey of it, it still mends upon the search, and produces our surprize and amazement in proportion as we pry into it."

These observations are so just, so applicable, and so far superior to any which we could offer ourselves, that we must be permitted to extend our citation.

"The body of an animal is an object adequate to our senses. It is a peculiar system of providence that lies in a narrow compass. The eye is able to command it, and by successive enquires can reach into all its parts. Could the body of the whole earth, or indeed the whole universe, be thus submitted to the examination of our senses, were it not too big and disproportioned for our enquiries, too unwieldy for the management of the eye and the hand, there is no question but it would appear to us as curious and well contrived a frame as that of a human body; we should see the same concatenation and subserviency, the same necessity and usefulness, the same beauty and harmony in all and every of its parts, as what we discover in the body of every single animal."

We can assure the Essayist that such are the sentiments of medical men generally and we rather suspect that we are more conversant with them than he is. We can but imagine how he may have come to the conviction which we are contending against. Perhaps he may have been acquainted with young medical men, or students who have spoken with thoughtless levity on serious subjects. Youth is the season of levity; such thoughtlessness is not confined to young medical men, and it would be highly unjust to measure the whole profession by such a standard. Medical students, somewhat vain of being admitted to the mysteries of the dissecting room, are apt perhaps to allude to what passes therein in a light and careless manner. This is to be regretted—"but boys will be boys." They become wiser, however, as they grow older. It may also be observed that medical men in the course of their studies become acquainted with so many fallacies which were once received as truths that in them a natural caution is engendered to the reception of dogmas

as dogmas. There is undoubtedly an innate feeling of awe and repugnance associated with our ideas of the dead. Medical students sometimes indiscreetly trench upon the line of propriety in regard to this feeling. Dissection is absolutely necessary to the attainment of a proper knowledge of the human organization, but the less said about it in mixed company the better. The sentiment alluded to was undoubtedly instilled into us for good purposes, and it may generally be remarked, that in proportion to the decorous disposal of the dead is to a certain degree the state of civilization and morality. One of the most debasing and demoralising customs of the Hindoos is their mode of disposing of the dead.

Perhaps too (as MEDICUS observed before us) it will be said that medical practitioners do not attend public worship with that regularity which others do. Surely there are obvious reasons why they cannot enjoy this Christian privilege to the extent that others do. It was an observation of the acute but unhappy author of '*Lacon*' that 'God will excuse our prayers for ourselves whenever we are prevented from them, by being occupied in such good works as to entitle us to the prayers of others.' Those to whom the Sabbath is a day of rest should be thankful; but though to most medical men engaged in 'works of necessity and mercy' it may not be a day of of rest, it does not follow that they therefore do not 'hallow it.'

Perhaps too there may be some who conceive that medical men do not sufficiently avail themselves of their position to warn the dying of their approaching fate. With reference to the proper conduct to be observed by a physician, in withholding or making his patient acquainted with his opinion of the probable issue of a malady manifesting mortal symptoms, we are glad to avail ourselves of the opinion of Sir Henry Halford.

"I own," observes that accomplished physician—"I own I think it my first duty to protract his life by all practicable means, and to interpose myself between him and every thing which may possibly aggravate his danger. And unless I shall have found him averse from doing what was necessary in aid of my remedies, from a want of a proper sense of his perilous situation, I forbear to step out of the bounds of my province in order to offer any advice which is not necessary to promote his cure. At the same time, I think it indispensible to let his friends know the danger of his case the instant I discover it. An arrangement of his worldly affairs, in which the comfort or unhappiness of those who are to come after him is involved, may be necessary; and a suggestion of his danger, by which the accomplishment of this object is to be obtained, naturally induces a contemplation of his more important spiritual concerns, a careful review of his past life, and such sincere sorrow and contrition for what he has done amiss, as justifies our humble hope of his pardon and acceptance hereafter. If friends can do their good offices at a proper time, and under the suggestions of the physician, it is far better that they should undertake them than the medical adviser. They do so without destroying his hopes, for the patient will still believe that he has an appeal to his physician beyond their fears; whereas, if the physician lay open his danger to him, however delicately he may do this, he runs a risk of appearing to pronounce a sentence of condemnation to death, against which there is no appeal—*no hope*; and, *on that account*, what is most awful to think of, perhaps the sick man's repentance may be less available.

But friends may be absent, and nobody near the patient in his extremity, of sufficient influence or pretension to inform him of his dangerous condition. And surely it is lamentable to think that any human being should leave the world unprepared to meet his Creator and Judge, 'with all his crimes broad blown!' Rather than so, I have departed from my strict professional duty, and have done that which I would have done by myself, and have apprized my patient of the great change he was about to undergo.

In short, no rule, not to be infringed sometimes can be laid down on this subject. Every case requires its own consideration; but you may be assured, that if good sense and good feeling be not wanting, no difficulty can occur which you will not be able to surmount with satisfaction to your patient, his friends, and yourselves."

In conclusion we would appeal to the history and example of the medical men most distinguished in all ages, as demonstrative of the erroneousness of the position taken up by the Essayist. Not to go further back than the days of the illustrious Harvey, we assert in our turn, that in no rank of life would he find more excellent or pious men than the immortal discoverer of the circulation himself, than Sydenham, than Boerhaave, than Haller, than Fothergill, than Heberden, than Gregory, and last not least, Mason Good, and many more dead and living, whom to refer more particularly to, would be superfluous, even if we had space to spare for the task.

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REMINISCENCES OF FRENCH SURGERY—No. II.

It can scarcely be necessary to remind you of the professional eminence of Baron Larrey. To see him, you need only fancy to yourself a short stout man, with broad features, and long grey locks floating in curls over his shoulders—dressed in a military blue jacket, with a scarlet collar, embroidered with leaves of gold. Larrey is delightfully garrulous on the memorable campaigns in Egypt and Russia, where he became familiar with instances of the most dreadful maladies recorded in the history of human suffering.

The Baron is remarkable, even among the French, for his extensive use of the moxa and the actual cautery. This morning (December 24, 1829,) I saw him employ the former on the chest of a patient, who had a hard indolent swelling along the sternum, which he wished to reduce by promoting suppuration on every side. The moxa, a cylinder of about an inch long, was placed in a ring with three little knobs to raise it from the flesh,—and lighted at the top. An assistant then with a blowpipe made it burn briskly, till the whole was consumed. After that, several pastilles, about three quarters of an inch long, and half an inch in diameter, were put on the left side of the chest. The lower parts were dipped in ointment to keep them steady, and the upper part being set on fire, the whole were allowed to burn away. Young Larrey gave me the following receipe for the composition of this kind of moxa. Baume de Tolu, Baume de Benzoine, Bois phosphoresant, et une peu de gomme adragante. On a subsequent day, the same process was repeated, but I did not observe that the patient had obtained much relief, though matter had been produced by the combustion.

On another patient, who had a swelling of the instep with severe pain, the Baron applied the actual cautery. He called for the irons, and when they came, the patient, a soldier of the Royal Guard, drew up his leg, and obstinately refused to undergo the anticipated agony. But the Baron seized him firmly by the toes with the left hand, reproved him for his refractoriness, and instantly dabbed the red hot iron over all the forepart of the foot, the man kicking and roaring out most vehemently. The operation, however, did not last above a minute. The Baron then washed the part with camphorated vinegar, and put over it a dressing of simple ointment, wax and oil, binding the foot up with bandages, and wetting them well to make them stick close. Loads of bandages are the order of the day in the hospitals at Paris.

Larrey also applied the actual cautery to a case of Erysipelas on the hand and arm. He pursues the same plan, whether on parts covered by clothing, or on the face. The operation, he says, never leaves any scar or mark. An œdematous leg was also treated by him with hot irons and tight bandaging. It may be noticed that the Baron never uses leeches, but the cupping glass. He never saw any good done by leeches in his life. The other hospitals, however, use them by hundreds at a time.

The Baron is further remarkable for his treatment of fracture, and the opening of the dressings is always an interesting event. The case I am about to describe was a mummy-like exhibition. The dressings had been on, undisturbed, *sixty-three days!* The leg had been set straight from the knee to the foot at once, well bandaged, and the whole saturated with whites of eggs and camphorated vinegar. No splints were used. Below was a stuffed compress for the limb to rest upon, and on each side a round pillow formed of long straw, about two and a half inches in diameter, kept together by bands, two or three inches distant from each other, and covered with folds of linen. Six tapes were laid under the dressings, and by them the pillows, &c. were drawn tight round the limb, and knotted above. This mass of dressings, more than two months old, and adhering strongly together, had become brown as if full of bitumen, and so close and tight were the folds that it required a knife to rip them up. The whole then came off like a

shell. The tibia and fibula had both been fractured, and there had been a violent laceration of the flesh about five inches long. The bones were firmly united, but the wound was not quite healed. This, said the Baron, was owing to the dressings having been removed too soon, for had they been left on another week, all would have been perfect. This was the sixty-third day, and he generally keeps the fractured limb in the same state, *seventy days!* It matters not what tension, or pain, or febrile symptom, the patient may feel, that makes no difference. He rigidly adheres to the time, never disturbing the progress of reunion by intermediate meddling. If all his cases are like this, and I believe him to be eminently successful, nothing can be more satisfactory. He washed the leg and wound with camphorated vinegar, dried them carefully, put on a dressing of simple ointment, and over that loads of charpie, placing the leg in an easy and secure position for the completion of the cure. A fortnight afterwards these dressings were opened—when the wound was nearly closed. The whole was then bound up again as before.

At La Pitié I saw Lisfranc use the actual cautery but once. He had just finished an important operation, the incision of about an inch of a cancerous rectum, when a lad was brought into the amphitheatre, said to have been bitten by a mad dog along the outer edge of the right hand. The fire pot was immediately brought, and the iron heated in the presence of the boy. It so happened unfortunately, that the charcoal would not burn,—the chafing dish was a crazy one, and the leather of the bellows torn. This occasioned some delay, but other materials were sent for, and at last the iron was made hot. Lisfranc having first laid open the bitten part with a bistoury, rubbed the red hot iron along the incision three or four times, after which he ordered a poultice to be applied. I did not hear the result.

I have seen Dupuytren, at the Hotel Dieu, adopt a rather domestic course in employing the moxa. It was in a case of dislocation of the shoulder. The muscles were so enfeebled that they had no power to keep the head of the humerus in its socket. Repeated spontaneous luxation was the consequence. The object, therefore, was to stimulate the parts, and excite a salutary action. The moxa was accordingly applied. A fold of lint had been saturated in a solution of nitre and dried—and, being placed over the pectoral muscle near the shoulder, was set fire to. Dupuytren himself blew it into flame with a pair of bellows, and eagerly continued his work, till the whole was consumed. This was repeated several mornings, but with no decided advantage.

On another occasion, I saw him use the actual cautery to stop the hemorrhage from divided arteries with surprizing success. *November* 30, 1829.—The promised extirpation of a large tumour over the occipital bone took place this morning. The tumour was about three inches in diameter. He made an incision round the base, and cut it through, close to the head, which did not produce from the patient a single moan. The substance was hard and yellowish, and had a cheesy look. The Baron called it a cancer, or carcinomatous tumour. The small arteries bled profusely, and the actual cautery was employed as the readiest and most efficacious way to stop the bleeding. The fire pot was soon in requisition with several irons in it red-hot. The points were applied to the mouths of the divided vessels, and the hemorrhage *instantly stopped.* Three were used before all the arteries were secured. He then covered the surface of the wound with balls of charpie, compresses, and a bandage, and the man walked away.

JAMES ATKINSON.

Barrackpore, March 1st, 1834.

OBSERVATIONS ON THE VITALITY OF THE BLOOD.

BY T. A. WISE, M. D.

Pathologists of the present day confine their attention to diseases of the different tissues of the body; while the fluids which perform such important offices in the animal economy, and constitute a large proportion of the bulk of the body, are generally neglected, or but imperfectly considered. This is particularly the case with regard to the blood, which, not being supposed possessed of vitality, is believed to act on the system, as a mere agent, and to have consequently but an insignificant effect on health and disease.

When the Humoral Pathology was taught in schools, many erroneous opinions were entertained regarding the vital action of blood on the system, and its effects in the production of disease. Dr. Cullen exposed many of these errors, and denied the vitality of the blood; which property, he supposed, depended on the nervous system. The eloquence with which he supported this opinion, the justness of many of his views, and the authority of his name, led to its general adoption; and with slight modifications it is still generally believed. The great error of this system seems to be

its exclusiveness ; by conferring vitality on nerves, and denying it to the blood which performs most important offices. Such partial views have acted most perniciously in the advancement of science. How often do we find in the History of Medicine that "the simple explanation had been long unobserved or misunderstood, which can only be accounted for by the imperceptible lightness as well as strength of the chains which authority had imposed on the mind." But, granting the number and reputation of those who allow not vitality to the blood, may we not justly say—has their experience been more extensive, their attention more continued, their perseverance more unwearied, or do they possess minds more acute, and information more extensive than John Hunter ? This Philosopher, after much thought, and in opposition to his prejudices and habits ; but with that native energy of mind for which he was so remarkably distinguished, concluded that the blood is vital. But this opinion is not peculiar to him. The immortal Harvey, by a process of reasoning which resembled, and in some particulars surpassed, that, which was afterwards unconsciously employed by Hunter, arrived at the same conclusion regarding the vitality of the blood. The ardour with which Harvey pursued his experiments on the vascular system, and the pre-eminent success with which his exertions were crowned, seem to have led him to suppose that the blood performs more important offices than our increased knowledge of the nervous system leads us to suppose. "Idioque concludimus," says Harvey, "sanguinem per se vivere, et nutriri ; nulloque modo ab alia aliqua corporis parte, vel priore vel præstantiore dependere."*

Before entering on the few remarks I have to offer on vitality, we must recollect our entire ignorance of its nature, beyond those which its effects afford. It is, therefore, improper, I conceive, to say that it is confined to solids ; and most unphilosophical to declare "that the life of fluids is revolting to common sense, because we are *unaccustomed* to attribute to them any power of motion, or indeed of any movement independent of external impulse." Thus conclusions are drawn before the nature, or even the properties of vitality are known. With such knowledge alone as we now possess, can a line be drawn between vital and dead matter from physical qualities? and can we say thus far is vitality to extend, and no further !

Were such distinctions as those of solids and fluids to be allowed in considering vitality ; at what time should such properties of the blood be examined ? When circulating, the blood is a homogeneous fluid ; but, unlike the properties of bile, saliva, and other secretions, which are not vital, and consequently the same in their natural receptacles as when removed from the body ; after which the blood undergoes important changes. When more carefully examined in its fluid state the blood is found to consist of serum, in which is contained a large proportion of solid particles, and a substance which is continually changing to a solid state. Thus we find the composition of the blood very similar to that of the solids of the body ; requiring only a slight change in its state, or of its elements to become solid.

The investigation of the laws which the growth of organized bodies follow, has proved that all commence their formation in a similar low origin ; and it is solely upon the extent and development of these, that the form and functions, not only of the whole animal, but likewise of its several parts, depend. * Such parts as are common to the lower classes of organized beings, are always present, in the embryo of the higher ; but, as the development of other parts are often arrested, we arrive at the conclusion that the frequency and extent of their absence in monsters is in proportion to the late period at which such parts are developed. Thus we sometimes find the brain, head and even trunk wanting in monsters ; but in all such cases we invariably find vessels and nerves, proving the early period at which these parts are formed, and their importance to the future animal. Another law in the development of organized bodies is, that the vitality of parts is in proportion to the early period at which they are examined.—Hence the less vitality of bone compared with the cartilage, &c. ; and in a very early period we find both nerves and blood formed, indicating their high vital powers. These facts are proved by examining the lower classes of animals ; as, in many kinds of zoophytes vessels with nerves slightly if at all developed only are found. If we descend to plants, we find that life consists immediately and essentially in the motion of the sap ; in which no system of nerves has been discovered. In trees, the vitality remains during winter in a dormant state, like that of hibernating

* Opera. Lud. Balav : 1737—de Generatione Ex. 51. p. 205.

* By the Chavallier Geoffroy-Saint-Hilaire in his Philosophie Anatomique, and ably developed by J. F. Meckel in his Handbuch der Pathologeschen Anatomie, &c. See also Bennett's translation of Tedmann's Treatise on the Human Fœtus.

animals; and it is only on the return of the sap that the foliage appears, and the fructification is developed. In plants, heat, like the heart of animals, moves and propels the sap into progressive, as the heart moves and propels the blood in hibernating animals, into a circulatory motion. The blood performs the same offices in the animal economy that sap performs in vegetables; and as these have no nerves, it is the sap we must conclude, that performs the vital functions, As we rise in the scale of organized bodies, we find the nervous system more developed and performing important offices in the animal economy. As we have no opportunity of examining the embryo of mammiferous animals, in an early period, we must be content with observing it in oviparous animals, in which we have every reason to suppose it follows the same laws, as in the higher classes of animals.

In the embryo of inferior animals, the blood seems to be developed even before the vessels which are to contain it.* In the yellow membrane, or yolk-bag of oviparous animals, a small rent is first observed, filled with transparent fluid.† This changes to a red colour, and in it there commences a series of movements which terminate in the developement of the chick: this is the product of the vital principle acting through the agency of the blood. The same is most probably the case in the embryo of the higher classes of animals. Such changes are peculiar to the blood; from which coagulable lymph is, in certain circumstances, secreted, forming granulations which become vascular by the inherent vitality which this secretion possesses from the blood. The red specks remarked by John Hunter, in the centre of granulations, are the first step towards the formation of new vessels in them. In this case, as in the rent in the yolk-bag of oviparous animals, the vessels are formed by the closing of these grooves, which elongating, their contents become active agents in the growth of the animal; and are consequently sent to parts in proportion to the rapidity of their development. We thus find that the blood is formed at a very early period, and that the importance and vitality of parts is in proportion to their early formation; we must conclude that the blood is possessed of vitality.* How different are such properties from those of matter? This resists any change from its present state, whether it be of rest or motion; and possesses natural powers, as gravity, attraction, repulsion, and elasticity, which are impulses or forces impressed upon it *ab extra*. The same would seem to apply to the vitality of organic substances. When we view the drop of liquid blood in its primeval state, can we suppose, that, that something called life is a functional effect; Does not our understanding declare the negative, and unhesitatingly conclude, that vitality is not the consequence of certain effects, but a primitive something attached to the liquid drop, like the natural powers of matter: a something, bestowed by consummate wisdom and power, to expand to a beauty of structure and adaptation, that can only be viewed with wonder and astonishment.

After the animal has arrived at such a degree of development as to admit of a separate existence, the food taken into the stomach undergoes changes, by the vitality of the organs, which reduce it to chyme; from which, by a process peculiarly vital, the absorbents select what is proper for the formation of chyle. While in these vessels it undergoes certain changes in its quality before it enters the system to renovate the blood from the waste it had experienced in nourishing the body. The blood thus prepared and changed, by the vital properties of organs, seems only fitted to perform its numerous and important offiees in the animal economy, by that portion of vitality which it possesses. By this property it is enabled to change the quantity and quality of the blood sent to different tissues and organs—at one time depositing solids, and at another absorbing them, to assist in the nourishment of the body, when it has not received its supply in the usual manner. By this change in the blood it is continually altering its vitality as it proceeds in its course; at one time discharging, and at another receiving extraneous matter, which in its turn undergoes changes for the purposes of the economy.

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* "Quantum," says Harvey, "ex accurata inspectione discernere lieuit, fit sanguis antequam punctum saliens efformatur."

† "Ces ramifications" of primary vessels, "résultent d'abord de petites vessicules arrondies, séparées les unes des antres, qui se forment entre les deux membranes du jaune; à ces cavities s'en reunissent peu à peu de nouvelles qui communiquent entre elles, et donnent naissance à un reseau vasculaire trés-délie. Au commencement, l'embryon n'est qu' une molécule presque tout-a-fait liquide."

* Prima antem omnis formationis rudimenta contemplaturis occurrit ortus manifestus a fluidis, sine quibus nullam unquam organicam formam natura creavit: Curtii Sprengil. Institutiones Medicæ, Tome 1, p. 102.

(l. c. Ex. 51, p. 199.)

Dict. de Medicine, Tome 15, Art. Œuf Humain, p. 344, by M. Olivier."

(Beclard Anatomie Generale, p. 113.)

When the body is not properly nourished owing to want of proper food, a diseased state of the chylopoctic viseera, chronic disease, poisons, climate, &c. the blood is found changed in quality, and diminished in quantity. In this state it is rose coloured, thin, with a soft gelatinous looking coagulum; from a diminished quantity of fibrin and red globules, and a larger proportion of serum. In such a state the body becomes emaciated, the surface pallid, and the animal and mental functions diminished in strength—as in chlorosis, &c.

In this weak state of the body when the waste is small, the nervous sensibility is generally diminished, the circulation becomes slower, and the blood is found darker and thicker. An example of this is seen in persons in a trance; in whom, from the torpid state, enough of nourishment is obtained from the solids of the body to make up the waste, as the functions of digestion are totally suspended. Hibernating animals afford another instance of such a state of torpidity; in which the motion of the blood is hardly perceptible; and in this case the insensibility is so complete, that when removed from their pits, they may be wounded without experiencing the least pain. When warmth is applied, the circulation increases, and they become sensible to external injuries.

In cases of swoons, &c. the heart and lungs cease to act, with impunity to life, from the blood retaining its vitality. Were it not for this property, it would coagulate or die from its situation, and the long periods it sometimes remains at rest. As the vitality is in a state of weakness in such cases, it is necessary to apply heat and expose the body to the influence of the surrounding media with care, as a too sudden exposure to these agents is liable to produce inflammation, the death of the part when the torpor is local, or destroy the animal when general.

The degree of vitality in parts is always in proportion to the quantity and quality of the blood sent to it, which forms a large proportion of the bulk of the body. As the activity of the functions of the circulation varies with the local vitality of the blood, as it circulates through the body; being greater in the arteries, and after stimulating the nerves and organs, and imparting a portion of its properties to the extreme vessels is returned in the veins enfeebled, to be again renovated in the lungs.

When vitality in a part is preternaturally augmented more blood is sent, and circulated through it, and the heat and secretions are increased; as in the horns of the stag when about to be renewed. The general system is found in the same state in infancy; when the blood is in a large proportion to the bulk of the body, which rapidly increases in size. As we follow the progress of an individual through life we find the quantity of blood diminishes towards decrepitude, when the arterial action is weak, the pulse languid, and the body emaciated: Thus it appears that the blood enters into the composition of every part of the body, that the peculiar secretions are all derived from it, which produce and augment solids, and when the supply of blood ceases in a part, it dies.

These facts are proved by removing blood from a part, or from the general system, when the action of the vessels is reduced and the strength of the system is diminished in proportion to its strength and the quantity, quality and rapidity of its removal. By this powerful Therapeutical agent the vitality of the blood can be reduced when too high; and in this state the action of the absorbents is increased, new matter introduced into the circulation of a more liquid quality, and less vital property.

So great is the importance of the blood to life, that in proportion to the vascularity of the part is the rapidity of repairing injuries. This may be proved by passing a ligature round the principal artery of a limb, and observing the effect on a wound made in the extremity, and another in the opposite. It will be found that the wound in the limb in the natural state will heal, in less than half the time it does in the other limb. As the circulation is quicker near the heart than in extreme parts, particularly when the blood returns against its own gravity, a wound in the one situation will heal more rapidly *cæteris paribus* than in the latter situation. Hence the difficulty of curing ulcers in old people, in the legs, &c.; when compared with those in the young, and in the trunk and arms. These varieties depend on the difference of circulation, and consequently the vitality of the parts.

The circulation of the blood has thus a tendency to equalize vitality over different parts of the body, and instead of its irritating and inflaming the tissues of the body, as it would be liable to do by any change in its properties were it inorganic, its vitality enables it to remain in harmony with the solids. It likewise enables it to vary its properties; as it is sent to different organs to perform its peculiar offices, and to separate, by secretion, what may be pernicious to its offices. The blood thus becomes the principal cause and support of life, by being resolved into different fluids and solids; and as it circulates through the body is able to resist powerfully the influence of

external agents, as cold, &c.; which, when severe would otherwise destroy parts more particularly exposed to their influence. By the continual circulation of this vital fluid through all parts of the body, a powerful resistance is afforded to the destruction of life by deleterious agents; the blood in the external and more exposed parts is renewed, from the internal parts and the vitality increased. In this manner a member does not die when exposed to great cold, until the circulation is destroyed in the part, and the vitality of the whole mass of blood weakened. Should the application of cold continue, and this weakness increase, so as to penetrate, through the bad conductors which the structure of the body forms, to the internal organs, congestions of blood are produced, and the person becomes torpid, and at length dies.

The above facts will prepare us for examining other vital changes in the blood when affected by Sthenic* causes. These remarks will be reduced to such as affect the blood in its natural receptacles; as in veins, arteries, and capillaries: 2dly. when thrown out upon vital tissues: and 3dly. when removed from the body.

* In the present state of medical knowledge it is impossible to avoid the language of theory. "The corruptions of false doctrines must remain more or less in our phraseology, after the doctrines themselves are exploded; since custom has rendered the expressions on which they are founded intelligible; and human sagacity has not as yet discovered those principles of living motion, by which the doctrines and language of physiology might at once be referred." Hence, the term *Sthenic* (σθένος) is applied, according to its original acceptation, to an increased tonicity, or organic action in the blood.

OBSERVATIONS

On the healing of Stumps, in cases where the ordinary means were not resorted to.

——— What stern ungentle hands
Have lopp'd, and hew'd, and made thy body bare
Of her two branches, those sweet ornaments?

SHAKSPEAR.

The following remarks arise out of the opportunity afforded me, when at Nipaul, of treating various individuals who had undergone the barbarous and severe mutilations so extensively practised in the criminal procedures of that country.

On the 3d September, 1831, the day of the jail delivery, among the numerous punishments which *his Honour* the Dhurmadhikar, or owner of justice, had, *in the plenitude of his clemency*, ordered to be inserted in the criminal list, were eleven men sentenced to the loss of a hand.

The crimes for which so severe a punishment was awarded, were chiefly petty thefts, except in the instance of one prisoner convicted of coining: strange as it may seem, this very individual had formerly suffered the loss of his right hand for a similar offence.

On the day of execution, with a view of giving all the assistance in my power to the unfortunate men, I commissioned a trusty servant to collect information respecting them, and if possible to trace them out, after they should have received their punishment; and to inform those he might meet, that I would give them remedial aid if they would consent to apply for it. The peculiar prejudices, however, of the Nipalese towards Europeans, render them at all times unwilling to seek advice from the Residency Surgeon, and it was not until the 21st October, or forty-eighth day after the infliction, that my aid was solicited. On this day, one of the sufferers presented himself for treatment, and a few days afterwards, I was visited by five others for the same purpose. From these individuals I collected the following particulars.

The prisoner, on being brought up in turn to receive his punishment, is placed on the ground, where he is secured by two persons, while a third firmly grasps the upper part of the fore-arm, having previously retracted the skin as much as possible from the wrist upwards. The operator (a man of the lowest caste—a sort of Jack Ketch of these regions) then proceeds with a large knife well sharpened, to cut through the integuments surrounding the wrist joint, at the same time carrying the incision sufficiently deep, to divide as much of the ligamentous structure beneath as he is able.—The hand is then roughly, and with considerable force, turned aside, and any remaining attachments are at once separated by the knife. Thus concludes the operation and the executioner's duty. The prisoner is then liberated and left to his fate. The precise time occupied in removing the hand I am unable to say, though, from constant practice, the operators have acquired a notoriety for exhibiting much dexterity in the performance of their rude and barbarous office.

My first patient supplied me with the following particulars of the after treatment: which will serve as a general record of that usually practised. The moment the hand was detached the sufferer firmly grasped the skin just above the bleeding stump with the opposite member. By this means he contrived to maintain a sufficient degree of pressure for nearly two hours

so as to prevent any considerable loss of blood. About this time two of his relations came to his assistance, and immediately removed him to a shed. When there, his assistants twisted some fine linen into a cord-like shape, which they bound with considerable tightness, commencing at the bend of the elbow, carrying it forwards as far as the edge of stump, and securing it at this point so as to prevent its becoming loosened. After this the stump itself was covered with a piece of dry linen and the arm enfolded in a bandage of the rudest kind. For four days from this time, the parts were not interfered with, and though the man said that the blood continued to ooze out for the greater part of the first three days, it is clear that the loss was inconsiderable, as it does not appear, at any time, to have occasioned syncope. On the third day some nostrum, in the form of ointment, was given to him by a woman, *(a practising physician of those parts)* but as he experienced no particular pain or uneasiness at that time, the original dressings were left untouched till the following day. When these were removed, all disposition to hœmorrhage had ceased, and I conclude the suppurative process had commenced, as the patient said, that a yellow discharge was exuding from the surface of the stump. The ointment was then applied over it, some leaves were placed which are commonly used by the Natives to promote suppuration, and the bandages altogether discontinued. From this period no unfavorable symptom appears to have occurred, and when the patient applied to me on the forty-eighth day, the stump was covered with some kind of earth, and had a dirty appearance. The application of a common cataplasm, however, soon cleansed the surface, when a healthy granulating sore was presented to view, and by persevering in the poultice, with occasionally a stimulating application, the parts gradually healed.

It may be asked, how it happened that the bandage was removed on the very day that pressure was no longer requisite for the purpose of suppressing hœmorrhage? I understood that the removal on the fourth day was purely accidental, simply arising from the circumstance of the woman presenting him with the ointment on that day. But for this, the bandage would not have been removed, nor the wound inspected for many days subsequent. It must not, therefore, be supposed that the removal of the dressings on the fourth day, was founded on any Surgical principle whatever.

Of the remaining individuals, who underwent a similar punishment, one died on the third day, and nine recovered. Six of the cases I subsequently treated, and in all of them the stumps healed about the tenth week, without a single circumstance arising in any one, to render the cure protracted. It should be mentioned, that until I (by the kind indulgence of the Resident,) gave these poor creatures an asylum, they were all huddled together in an open shed about two miles from the Residency, depending solely on alms for their support, miserably clad, and subject to every bitter evil, which poverty and loss of caste could give rise to. It will scarcely be credited, that about the time my patients might have been pronounced cured, a circumstance occurred to cause them to be hastily removed from the premises of the Residency. No less than their being again at their old work, and implicated in a robbery at the house of a member of the Royal family who lived hard-by.

A year seldom passes without this punishment being inflicted, and I was informed that death rarely follows.

In a Surgical point of view, the foregoing remarks are instructive, inasmuch as we learn from them that large arteries, such as the Radial, Ulnar, and Interosseal, may be divided without fatal hœmorrhage occurring, and with no better provision of art, than the simple means adopted in these cases. I had been informed that a common method of arresting hemorrhage after amputation was to plunge the stump into boiling oil: but in these instances, at least, nothing of the kind was resorted to. In the six cases which fell under my immediate notice there was no dribbling of blood observed through the dressings after the third day, and although it is reasonable to infer that the previous and almost constant draining of blood from the wound, though not to any great amount, might be sufficient to interrupt the inflammatory process which supervenes in the coats of the vessels, it nevertheless, would appear that the deposit of adhesive matter at their orifices is not driven off by the blood, but becomes organized with the tunics, so as to render the obstruction complete in the space of three days. Be it also remembered that the pressure required to suppress the hemorrhage in these examples is not so powerful as to interfere with the curative process. Nor is it less worthy of notice, that, when suppuration is fairly established, the swelling of the integuments is so trivial as not to require the patients to loosen or remove the cord-like bandage. In five cases this bandage was not interfered with till from the 12th to the 15th day.

The fact that the bleeding orifices of the largest arteries of the extremities can be

successfully checked by means of pressure alone, is already known to some Surgeons on the Continent, though I am not aware that it has been taken advantage of by English praetitioners. Dr. Koch, Senior Surgeon of the Hospital at Munieh, has, for the last twenty years, never employed ligatures to arrest the bleeding from divided vessels after amputation. An assistant compresses the main trunk with his hand during the operation and until the dressings have been applied. Then, instead of this pressure, a graduated eompress is fastened by a bandage along the eourse of the artery. The patient is then removed to bed, and watehed by an assistant who exercises a slight pressure with his hand on the stump as long as strong pulsations are felt in the part. This plan Dr. Koch has always found suecessful.*

I do not know that this method has ever been adopted by English Surgeons. If not, it is matter of regret, since the subject is full of importanee, and has the advantage of being baeked by the extensive experience (twenty years) of one of the most celebrated Surgeons of Europe. So far as I am eapable of judging, the results of these Nipaul cases, go far to strengthen the belief, that this plan of treatment is of sufficient importance to warrant deliberate consideration, since it obviates the pain and delay which frequently oeeur in securing arteries, and what is of still greater importanee in the after treatment, the ligatures attached to the vessels would not be in the way, to excite that irritation, whieh their presence not unfrequently oecasions, to the prejudice of the healing process.

M. J. Bramley.

11*th March*, 1834.

TO THE EDITORS OF THE INDIA JOURNAL OF THE MEDICAL SCIENCE.

My Dear Gents.,—No. 3 of your Journal reached me yesterday, and I am rejoieed to see by your editorial that it is progressing to your wishes, with such Nos. sueeess eannot be doubtful. Stranger as I am to you both, yet I take mueh interest in the publieation; however it was not for this I took up my pen, but to remark on the great coincidence of Mr. Campbell's case and one I am sorry to say I had oeeasion to forward sometime baek to the Medical and Physical Society (your Journal was not); in both cases six grains produced the misehief—but in mine violent salivation ensued, followed by sphacelation of the lips and great part of the eheeks. What peeuliarity of eonstitution can give rise to sueh horrible effects? this woman appeared a sound, healthy, rather stout person. Do not thousands take this dose with impunity, nay with benefit, aye, even to the increase of population? Who is not aware that in this country many a fond wife has had her wishes erowned in due time after a salivation? I knew one lady who never bore a ehild but at the expenee of her mouth, and this not onee, but four times, when death stopped any further trials. By the way, while on the subjeet of female economy, is not hysteria and all its train rare among native females of this country? and is it not to be attributed to the faet that the women are not kept in an artifieial state, but from puberty plaeed in situations God and nature intended they should be? Before eoneluding, will you put forth the following? Caleutta, I imagine, can only solve it.

A. is the son of a European and Native woman.

D. is the son of A. and marries C.

B. is the daughter of a E. and N. W.

C. is the daughter of B.

Qu: will the ehildren of D. and C. live to maturity, and if they do and marry a grade as equally removed from European and Native as themselves, will they live, or in other words, will not the Indo-British breed be extinet in the 3d or 4th generations, provided no nearer approach to Indian or European blood is made—what is the faet? With every wish for your health to carry on, and sueeess for your stimulus,

I remain,
My dear Gents.,
Your's very sincerely,
George G. Spilsbury.

Camp, near Nursinghpoor, 15*th March*.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—I had almost forgotten to do that, which it would have been unpardonable in me to have neglected, viz. to inform you, that you have fallen into a mistake in attributing to me the interesting ease of Congestive Fever quoted in the appendix to Part II. of my little work on Cholera.

The case in question occurred in an Offieer of the 13th Regiment N. I. and was treated by that zealous and highly intelligent Medical Officer Mr. Assistant Surgeon Cuthbert Finch.

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* Vide Lancet No. 247, vol. 2nd, 1827 and 1828.

I trust Mr. Finch will receive this explanation as some acknowledgment, for having omitted to affix his name to the case in the first instance.

I remain, Gentlemen,

Your obedient servant,

JAS. HUTCHINSON.

April 11th, 1834.

HOSPITAL REPORTS.

SUMMARY OF MR. RALEIGH, FOR MARCH, 1834.

Cholera.—It is discouraging to feel, that after an expenditure of anxious and persevering investigation during a period of seventeen years, through the whole of which time the disease has been more or less prevalent, we should have come to no satisfactory conclusion as to the cause and nature of Cholera, and that the treatment of the present day should be as undecided and empirical as on the first appearance of the disease. There are a few inferences, however, which observance of the disease, through a succcssion of seasons, has enabled us to make—and one of the first in practical importance, perhaps, is the circumstance of the disease undergoing certain modifications in its nature, or in the intensity of its effects on the human constitution, either from some change of atmosphere, or of the exciting cause, whatever that may be,—and that under these variations of cause, or effect—*the disease will not bear a similar treatment.*

From practitioners of established reputation, I have heard that, in 1817, and several subsequent years, the abstraction of blood was almost invariably attended with the best results; indeed, so great was the confidence in this remedy, that a general rule was established "to bleed in every instance, and in every stage of the disease, if blood could be obtained." Not to have laid open a vein in a Cholera patient, even at the last gasp, and when in a state of extreme prostration, would have been considered an egregious mistake, and where blood could not be obtained from a vein, I have heard it proposed to divide the radial artery. But during the last three years, in this part of India, it has been found advisable to observe much caution in the use of the lancet; many a patient's death has been accelerated by bleeding, and I know of no instruction more calculated to do irretrievable mischief, and destroy one-half at least of our patients, than that of *bleeding promiscuously* in Cholera. I have seen a stout sailor, apparently rallying under a stimulating treatment, and having at the time a distinct and moderately full and firm pulse, killed as by a cannon ball by the abstraction of a few ounces of blood, and many a one have I had the pain to witness rapidly sink from the moment he was bled. I consider it a fortunate circumstance that bleeding cannot generally be adopted by those unversed in the science of medicine; in such hands we have the sanction of experience to assert that a dose or two of calomel and opium—to relieve the earlier urgent symptoms, such as vomiting, purging, &c. followed up by purgatives, is a much more safe line of treatment. The medical practioner will not, it is to be hoped, be influenced, by the name of the disease, or by what he has read of, or been told by others, but apply his remedies for the relief of symptoms prevailing at the moment he visits his patient. In a disease like cholera it is next to impossible to communicate to another a guide for its rational treatment. The experienced practitioner will instantly, by the character of the pulse—the temperature of the body—the state of the skin—and above all by the expression of countenance, and degree of anxiety and oppression which obtains, decide on the propriety or impropriety of bleeding—even he however will sometimes be deceived—particularly if he allows his opinion to be at all biassed by what he has observed to be the result of general bleeding in former years, or at particular periods. It seems beyond the power of human imagination to devise the cause of cholera; it appears very much to depend on some unnatural condition of the atmosphere taken into the lungs. Hence we find it raging as an Epidemic at particular seasons, or it is confined to a certain very limited space—or several instances are met with about the same time, and then the disease ceases. The three annexed cases, together with two others, were brought to the General Hospital within a very few hours of each other, excepting which we admitted no cholera patients during the month—three of these men resided in the same lodging in the Bow-bazar—and it is worthy of particular remark that, about two years since "a large number of sailors, most of them formerly belonging to the wrecked Indiaman *Duke of York*," who had clustered together in one of these public houses in the Bow-bazar, were nearly at the same period attacked with the disease, which was not prevailing in Calcutta at the time.—The Contagionist may argue that the disease was conveyed from one to another—but if that had been the case, it would have propagated itself through the wards of the hospital whither

they were all brought, and which it did not do; and it is an extraordinary fact, militating strongly against the hypothesis of contagion, that in a period of more than thirty years, of the servants of the General Hospital employed in rubbing and performing the various necessary offices for the cholera patients, only *one* has died of that disease.

In the treatment of cholera I have given a trial to most of the lately proposed remedies, including saline injections into the veins. The saline treatment.—Tobacco injections, &c. &c. but have been disappointed in their effects. After having read so much in favour, of each, as a general remark, I think I may assert that I have seen more satisfactory results to follow a practice, consisting, first in bleeding—where admissible and necessary—allaying the irritability of the stomach, and purging, by calomel and opium, mustard poultices to the abdomen, &c. &c. and as soon as the stomach would bear it, the administration of stimulating purgatives, than from any other I have had recourse to.

Case 1*st*, *March* 8*th*.—S. W. was brought to hospital at ½ past 2 o'clock P. M. he had eaten his breakfast heartily, and very soon after was seized with vomiting and watery purging, followed by cramp of the legs and hands—on admission into hospital, he had the voice and livid countenanee of a cholera patient—sunk eye—wet skin—small frequent but distinct pulse at the wrist—parched mouth, with excessive thirst, restlessness and sense of oppression at the Epigastrium—(in such a case I would not abstract blood, I therefore prescribed)

Mustard Cataplasm to the belly.
Shave the head and keep it cold.
Calomel ℈i. directly.
Liq^{r}. Ammon ℥i—Mist. Camph. ℥i—directly and rep^{d}. every hour.

5 *o'clock*.—Since ½ past 2—has had two cholera stools, and vomited twice, but his countenance has improved and pulse is stronger.

Calomel gr. x.—Ext. Colocynth C. gr. x—Ol. Carui. gr. iv.—directly, and rep^{d}. every 2 hours.

7 *o'clock*.—No stool or vomiting since 5 o'clock.

March 9*th*, 7 *o'clock*, A. M.—Has passed two fluid stools of darker colour, and had no vomiting, has also voided a little urine.—R. Calomel gr. x.—Ext. Colocynth Comp. gr. x.—Ol. Croton. Tig: g^{tt}. i.—Ol. Carui. g.^{tt} ij.—every 2 hours unless much purged.

10 *o'clock*, A. M.—Has had one dark fecal fluid stool.

Medicine continued at intervals of two hours.

4 P. M.—Free from cramp or uneasiness, had one dark fecal fluid stool.

Cont. Remed.

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6 *o'clock*, P. M.—2 dark green stools since 4 P. M.—Pulse 96, soft and small.

9 *o'clock*.—Going on well: medicine continued.

March 10*th*, 7 A. M.—Has taken his pills regularly through the night, and has had but one watery stool.

Pulv. Scammon. Comp. (P. L.) ℈i. directly.

11 *O'clock*.—Has passed two dark fecal stools.

A cup of warm sago, now and then.

4 P. M., two brown fecal stools.

Calomel gr. x.—Ext. Col. Comp. gr. x. at bed time.

March 11*th*.—No evacuation in the night.

Pulv. Scammon. C. ℈i. which operated freely—from this time his bowels were kept going by mild purgatives, and on the 31st he was discharged from hospital quite well.

Case No. 2. 1*st March*.—T. B. seized at midnight with cholera—was bled, and had three calomel and opium pills at the instant of attack. At 4 o'clock P. M. of the following day, 10th of March, he was sent to the General Hospital, at which time he had a livid cholera countenance and hoarse voice, with cramps of the muscles of the abdomen and of the extremities, and sunk eye, but the pulse was hard and quick, the belly tender, and he had more the countenance of oppression than of exhaustion.

Again bled from the arm.

Mustard poultice to the belly.

Calomel gr. x.—Ext. Colocynth Comp. gr. x.—Ol. Carui. gtt. vj. every two hours.

He fainted on the abstraction of ℥viij. of blood, and the body became suffused with sweat—the pulse very feeble.

Night.—No stool or vomiting since taking the pills—pulse small, cramps severe, is very low.

Some brandy and water administered at intervals.

7 A. M., *March* 11*th*.—During the night has passed three fluid fecal stools—his countenance has improved, and he is free from cramp.

Cont. Pill.

2 P. M.—Several brown fecal stools.

Omit Med.

A cup of sago now and then.

12*th*.—Improving—stools fecal.

Ol. Ricini ℥ i.

13*th*.—Stools nearly natural—the mouth affected by mercury. A turpentine gargle prescribed, which appeared to be of no great service—the patient was discharged cured on the 17th.

In the third case the patient was past all prospect of recovery, and from the inspection after death I should consider his case more one of inflammation of the bowels than cholera. Several large ulcers were detected in the stomach, and the whole of the bowels had the appearance of having been inflamed. He was brought to hospital at five o'clock, and died at nine o'clock the same morning. So that the remedies prescribed had no time to take effect.

FEVER.—The prevailing fevers of this month have been simple continued: easily subdued by general and local bleeding, mercurial purgatives and saline antimonials. Or of an intermittent type, which have given way to the practice adverted to in my former report.

INFLUENZA.—Of the influenza which has been running its course in Calcutta through the last two months, I have had many cases, three of which were very severe, being accompanied by fever and inflammation of the chest, and requiring general bleeding, purging, blistering over the chest, and the frequent administration of antimonial solution.

March 29th—Case.—T. R., a sailor, had been unwell two days, he complained of head-ache, pain, and soreness of the chest, had a hoarse cough, the pulse was quick and hard, and skin hot and dry.

Bleeding from the arm—and a purgative directly.

R. Antim. Tart. gr. ½.—Mag. Sulph. ℥ i.—Aquæ ℥iss. every three hours.

30*th.*—Better.

Blister over the chest.

Antimonial solution continued.

He continued to take the same medicine, and improved gradually.

Case 2d. 29th March.—T. M. had cough, soreness of the chest, dyspnœa, coryza, aching of the limbs, head-ache, &c. &c.

An Emetic, followed by a purgative, was first prescribed.

30*th.*—Medicine operated freely, he has pain across the forehead, and cough.

xx leeches to temples.

Antimonial Solution, every two hours.

31*st.*—Has still head-ache and cough, skin hot, pulse small.

xii leeches to the temples—medicine continued.

April 1st.—Better, but not free from head-ache or soreness of the chest, with cough—and viscid expectoration.

xij leeches to the temples, blister over the chest.

Antimonial solution continued.

4*th.*—No febrile symptoms; at night has fits of coughing.

Medicine continued,

Tinct. Opii. gtt. xl.—Mist. Camph. ℥i. H. S.

5*th.*—The opiate relieved the cough, he had a good night and is now convalescent. In milder cases, an emetic followed by a purgative, and a solution of antimony, with the addition of a few drops of Tinct. Opii. was found beneficial.

HEMOPTYSIS.—T. H., a slight made country-born man, of rather hectic appearance, æt: about twenty years, had a year ago an attack of spitting of blood, of which he got the better, and continued well up to a week since, when he experienced a relapse of the complaint, and during eight days previous to his admission into hospital, on the 16th of March, he had had harrassing cough, with bloody expectoration—generally in coagulated clots, and occasionally in a fluid state, and in considerable quantity, coming on in sudden bursts, after a fit of coughing, soreness and sense of weight and constriction of the chest, and salt taste—the pulse was frequent, small, and sharp—the skin hot and dry, he was anxious, and alarmed about himself.

Bleeding to syncope when in a sitting position, and as medicine, a mixture composed of Mag. Sulph.—Acid Sulph. Dil. and Inf. Rosar. were prescribed—very low diet, and his beverage to be taken cold.

17*th.*—The pulse small and less frequent, cough less urgent, expectoration still bloody, but lessened in quantity—and he has had no sudden burst of hemorrhage—he is very irritable—bowels gently relaxed.

R. Magnes. Sulph. ℥ ss.—directly.

R. Plumb. Sup. Acet. gr. ij.—Opii. gr. ¼.—every three hours.

18*th.*—The expectorated matter is mucous, mixed with blood in small quantity—pulse small and frequent—bowels open.

Mag. Sulph. ℥ ss.

Medicine continued.

Emetic Tartar—plaster over the chest.

19*th.*—During the night he had a severe fit of coughing, and brought up at once two ounces of florid blood—the cough is now very troublesome, and the expectoration patches of blood—pulse quick, small and hard—skin hot, and the uneasy sensations of his chest have returned.

Rept:—Bleeding in a sitting posture to faintness.

Mag. Sulph. ℥ij.—Acid Sulph. Dil. gtt. xij.—Infus. Rosar. ℥ij.—every two hours.

Cold toast and water or tea as diet.

After ℥ x. of blood had been abstracted, he became faint.—The medicine kept the bowels freely relaxed.

20*th*.—The expectoration is mucous and blood, cough less frequent, and uneasiness of chest abated.

Up to the 24th, under the application of iv. leeches over the chest daily, and continuance of the same medicine, he improved; the expectoration on this date being mucous, free from any bloody stain, the pulse small and softer, though still quick.

25*th*.—The cough is troublesome at night, with mucous expectoration in patches,—pulse small, but frequent and sharp.

Re-apply an Emetic Tartar plaster over the chest.

R. Tinct. Digitalis, gtt. v.—Mag. Sulph. 3i.—Aquæ. ℥ iss.—ter. die.

R. Tinct. Hyosciam. 3i.—Mist. Camphor, ℥ i.—Hor : som : sumend.

By the end of the month he was quite convalescent, and at this time, April 10th, is tolerably well.

Inguinal Hernia.—A case of Inguinal Hernia in each groin, occasioned by a fall in which the man received a violent blow across the abdomen, was easily reduced by placing the patient in a favourable position and making gentle pressure with the hands.

Injury of the Head.—J. M., a man of very irregular habits, æt: about 35, was brought to hospital at half-past ten o'clock on the 21st of March, in a comatose state; he was perfectly insensible; inspiration performed principally through the nostrils with a snoring, and expiration by the mouth with a puffing noise; the right pupil was fully dilated, the left contracted; the pulse hard and frequent, but small; the temperature of the body generally above natural, and the head intensely hot. On the head being shaved, the integuments over the right side of the head were found much swelled, but no indications of the existence of fracture of the bones were present.

A vein was opened, and with difficulty about ℥xij. of blood obtained—on which the pulse fell and became very feeble.

The stomach was evacuated of its contents by the stomach syringe.

The head shaved and cold water frequently poured over it, a bolus composed of Calomel, gr. x—Ol. Croton, gtt. iij—was passed into the throat, and a purgative Enema administered.

Noon.—One involuntary stool—symptoms unchanged.

Repeat the injection.

4 *o'clock*.—Exactly in the same state as when admitted into hospital.

Ol. Croton, gtt. iij. placed on the root of the tongue.

Repeat the injection, and pass a catheter.

Night.—Had no evacuation from the bowels—he occasionally vomits.

Ol. Croton. Tig. gtt. iv. externally applied to the epigastrium.

22*d*.—Has continued through the night in exactly the same condition—had no stool, and passed no urine—pulse feeble and rapid breathing rather more sonorous, and performed in the manner described at the commencement of this report.

Mustard Poultices to the feet.—Blister between the shoulders.—Ol. Croton. gtt. iv. Congee lbj.—as an enema.—Ol. Croton. gtt. iij. dropped on the root of the tongue.

Died at 10 o'clock A. M., twenty-four hours after his admission into hospital.

Post Mortem examination.—The cellular structure beneath the integuments of the right side of the head was infiltrated with blood: on scraping off the pericranium, a *fissure* was observed extending from the sagittal suture across the parietal, and squamous portion of the temporal bones, to the sphenoidal suture.

The skull cap being removed, a coagulum was exposed between the dura-mater and skull, covering a surface corresponding with the parietal and temporal bones in extent—its central portion being an inch and a half thick, and weighing five ounces, independant of the more fluid part not preserved—beneath this mass of blood, the dura mater was quite loose, and the brain through it felt soft—on this membrane being laid open, a thin layer of coagulum was seen between it and the arachnoid—and beneath the pia mater a considerable quantity of blood had effused over the surface of the hemisphere and between its sulci—through the right hemisphere, nearly down to the base of the brain, passed a rugged laceration—and at the under part of the anterior lobe was a coagulum of the size of a pigeon's egg, together with some blood in a fluid state.

The arteria meningea media was the source from whence the hœmorrhage arose between the skull and dura mater—a large branch of that vessel having been torn.

Abscess.—The two next cases are good examples of the excessive constitutional derangement which is frequently observed to follow local injury inflicted at a time when the system is in a high state of excitement from hard drinking.

January 10*th*.—T. H., æt: 30, had been drinking freely, and, whilst in a state of intoxication, received a blow on the inside of the left thigh. Three days after the accident occurred, there existed much inflammation, swelling, and great pain of the whole thigh, with small irritable pulse, &c.

A purgative, leeches, and fomentations were ordered—and at night the whole thigh enveloped in a poultice.—Low diet.

11*th.*—The leech-bites continue to bleed—pain, &c. relieved somewhat.

Repeat purgative and local applications.

12*th.*—Raving delirium—tremor of the muscles, &c. have come on—the thigh appears much less inflamed.

A full dose of Opium induced sleep.

13*th.*—Tranquil.

Mild Purgative.—Poultice continued.

17*th.*—After going on quietly for four days, symptoms of delirium, tremors have returned—the patient is weak, and the thigh still swoln and red.

Quininæ S. gr. v.—G. Opii. gr. i. every four hours.—Poultice the limb.

Milk and sago diet.

19*th.*—Been composed, and had some sleep at intervals; on the inside of the thigh, just above the knee, there is a fullness, which when pressed communicates an indistinct fluctuating sensation, as of matter deeply seated in the thigh.

Made an incision three inches long, and the whole depth of the blade of the scalpel, at the lower third part of the thigh on the inside, on which a gush of green pus took place, and about a pint drained out.

Quininæ S. gr. ij.—Opii. gr. ¼.—Rhei. Pulv. gr. ij.—ter in die.

27*th.*—The nervous symptoms have subsided—the abscess discharges copiously, pus more healthy in colour.

Quininæ S. gr. ij.—Rhei. Pulv. gr. ij.—ter die.

Chicken diet, &c. beer a pint.

February 11*th.*—He gradually improved up to this date—when a diarrhœa came on—the abscess which had nearly closed previous to this occurrence now discharged more largely.

A milk and sago diet was returned to, and remedies employed to arrest the purging.

20*th.*—The bowel complaint relieved, but the general health is much impaired, and an abscess has formed at the upper part of the thigh.

This second abscess was laid open with the knife, and poulticed:

And Quininæ, gr. iij.—G. Opii. gr. ss.—prescribed three times a day—with a more nourishing mild diet, and port wine.

23*d.*—The discharge from both abscesses lessened, and of healthy appearance.

Applied a roller over the whole limb.

Medicine continued.

March 1*st.*—Much improved.

Chicken diet and port wine.

Medicine continued.

16*th.*—The abscesses healed—general health much better.

March 24*th.*—Quite well.

January 3*d.*—F. H., æt: twenty-six, whilst in a state of intoxication, cut across the back of his right wrist and lower part of the arm, with a razor; the wound, although superficial, was immediately attacked with inflammation of an erysipelatous character which speedily extended up the limb, and caused several abscesses to form, which were long in healing; and, for a time, reduced the patient to a very debilitated state.

The treatment was much as in the preceding case:—at first, composing the system, and attempting to allay local inflammation; and subsequently supporting the patient with light nourishing diet and tonic medicines, and giving free exit to accumulations of matter, as soon as detected.

Case of Partial Fracture of the Arm.—T. M., æt: about nine years, a very weakly child, was a patient in the hospital for a sore on the leg—during the night he fell from his cot, and I found him next morning complaining of much pain of the left elbow which was swoln, and exquisitely painful—on careful examination I could distinguish no signs of fracture.—A few leeches, cold lotion, &c. &c. were had recourse to, which somewhat relieved the uneasiness and reduced the swelling, but pain still continued. From time to time, during a week, I carefully examined the part—and could detect none of the usual indications of fracture, but it appeared to me that the humerus admitted of slight YIELDING at the centre.—Splints were now applied and worn for three weeks, and on their removal the humerus could be distinctly felt to be enlarged at the centre of the bone (for the arm was extremely thin)—and the yielding of the bone was not now to be accomplished. I am induced to believe that this was a case of partial fracture, or partial splitting of the humerus, in which, sufficient of the bony structure remained unseparated, to retain the broken portions in their natural position, and prevent their being moved on each other, so as to occasion crepitus.

Ulcers.—Three sailors belonging to a ship which had made a good passage from England, during which they had not been exposed to much wet weather—but had been principally fed on salt provisions—stated, that they were in good health up to the time of their arrival at a port on the coast, where the vessel took in a cargo of salt, in the shipment of which they were employed, and their naked legs and feet were constantly exposed to, and in contact with the salt. After a few days the feet and legs inflamed, and ulcers broke out in various situations—rendering them unfit for their duty—for a time they were so

much recovered as to be enabled to assist in unloading the ship on her arrival at Calcutta, but this measure was attended with a recurrence of their previous complaints, in an aggravated degree, on admission into the General Hospital. February 3d—two of them were suffering from several irritable ulcers on the dorsum of the foot and up the leg—with inflammation of the adjacent parts up to the knee—for relief of which mild purgatives, a cold lotion to the legs, and a bland diet were only required.

The third man, however, was completely under the influence of scurvy. His general health was impaired, he was very thin—had a sallow complexion. For a fortnight he had had very frequent watery purging, his gums were spongy, the knee joints contracted, and the upper and lower extremities and the nates thickly covered with vibices and petechiæ, on the feet and legs were several sores, the surface and edges of which were nearly of a black colour, and the surrounding integuments for a considerable distance purplish red. Several other sores, of the same character, were situated on the nates and hips.

The sores were poulticed, a mild nourishing diet and lemonade allowed him: and as medicine;

Pulv. Cinchonæ. ℈ij.—Pulv. Rhei. gr. ij.—ter in die.

The sores gradually healed, but the diarrhœa continued obstinate: on the 16th of March—Cupri. Sulph. et Opii. ā. ā. gr. ss. were prescribed, which checked the purging for a time, but the quantities of the medicines required to be gradually increased up to Sulphate of Copper gr. iss. Opium gr. iss. in each dose. At the time of making this report, he is free from bowel complaint—and has taken no medicine for some days past—but he continues weakly, and one of the sores on the nates has terminated in a fistulous communication with the rectum, which will require to be operated on, as soon as the general health has been completely re-established.

February 22d.—Mr. B.'s case was one of large irritable ulcer occupying the fore-part of the leg—accompanied with inflammation extending up the limb. Perfect rest, placing the limb in an elevated position, poulticing, and a daily mild purgative were directed—the weight of the poultice was unbearable and increased the pain—a lotion of the superacetate of lead and opium was consequently substituted with good effect—by March the 6th, healthy granulations covered the surface of the sore, which was now strapped up with adhesive plaister—and by the 19th the ulcer had healed.

Enlarged Glands of the Neck.—*March 1st.*—A young man had for many months had choronic inflammation, with enlargement of the superficial glands of the neck—which he considered as the effect of syphilis. A few leeches were daily applied to the most inflamed glandular tumours.

Plummers Pill every night—a laxative in the morng. and the Compd. Decoct. of Sarsa. and Liquor Antim. Tart. twice in the day, were ordered with. bland diet.

By the 12th of March the inflammation had sufficiently subsided to allow of the use of Iodine ointment, which was rubbed over the swellings morning and evening, leeching being omitted.

The swelled glands had very much decreased in size, but the patient was not quite cured when he was obliged to leave the hospital, at the end of the month.

Chronic enlargement of the Glands of the Groin.—Several cases of chronic bubo have been succesfully treated during the month by the application of lunar caustic over a surface of about three inches square, of the integument covering the enlarged gland.

Errors of the Press in the Report for February,—No. IV. of the Journal.

Page 119—tenth line from the bottom—for "2 leeches to the anus," read 20 leeches to the anus.

Page 121—line 13 from the top, for Ophthalmia "created"—read Ophthalmia treated.

Page 121—line 20, for bleeding from the "oner," read from the arm.

W. RALEIGH,

General Hospital.

April 12, 1834.

THE PHYSICIAN.

No. V.

Teething.

It is a proud day for the young mother, that on which she sees the first tooth of her first baby peeping through the gum. But the pleasure is fraught with pain: it is too soon changed to anxiety, perhaps to sorrow.

Long before the birth of the child, when the jaw is but a narrow circlet of bone the rudiments of the teeth may be found. They are then in the state of a soft, pulpy matter, and each is contained in a little membranous bag. This bag, with its enclosed rudimental tooth is placed in a groove along the edge of the jaw, which groove is formed by the outer and inner sides of the bone growing

faster than the middle, and therefore rising up above it. In a short time the groove is divided by little bony partitions shooting across, so as to form separate sockets for the teeth; and its sides growing over toward each other at their upper part, almost enclose them at the top.

This quick growth of the sides of the jaw bone answers two purposes. It thereby completes the alveolar processes or sockets of the teeth: and by partly roofing them over, as described above, a support is given to the gum that prevents pressure upon the tender substance of the young tooth. Were it not for this, or something else of a like kind, the child could not when sucking, press hard enough with the gum to draw out the milk, without the risk of doing hurt to the tooth beneath.

The process of ossification, or changing into bone, begins in the tooth early, generally about three or four months before the birth of the child. It begins upon the tips of the incisor or cutting teeth; then upon the same parts of the canine or eye teeth; and afterwards upon the points of the molars or grinders. From these points it spreads over the whole of the tooth, (saving the centre which is hollow for the nerve and vessels that nourish it,) gradually replacing the soft pulpy matter with enamel and bone. In this state the tooth is ready to begin its advance toward the surface of the gum, and press forward till it is cut.

At the time of birth, the changing of the tooth into bone and enamel, is in the upper part completed. There are then in each jaw ten teeth, perfectly formed as to their crowns and bodies, but still incomplete in their fangs. At a certain time after birth, these parts also are fully formed, when the third stage, which consists of the advance of the teeth through the gum, begins; and as it is the only one in which any treatment can be applied, so it is the only one in which there is need for its use.

The cutting of the teeth takes place at different periods in different children; in some beginning late, in others early. In general, however, it is about the sixth or seventh month after birth that its first symptoms appear. The child then grows feverish and uneasy, is seized with frequent and sudden fits of crying, and is easily irritated from its wonted infant calmness; it is fond of putting its fingers into the mouth, and of mumbling any hard substance, such as the end of a child's coral, between the gums; and the flow of the saliva is increased. As the tooth advances the gums are inflamed, red, painful and swollen; and the edge or ridge immediately over the one about to be cut, loses its sharpness, and gets rounder. This irritation of the mouth soon spreads to all parts of the body. Bowel complaints, either of costiveness or looseness come on, and fever is not long ere it approaches, and draws along with it an attendant train of disorders. Sometimes the child is taken with a violent cough; at others the fever runs very high, together with a great flow of blood to the head, making that part very hot and painful, so that the little sufferer can hardly open its eyes to the light. In some cases convulsions take place; or eruptions of the skin, or little white spots in the mouth, break out; and in short the whole of the usual effects of great constitutional irritation rarely fail to be present at some one period of every bad case. Such are the symptoms we may expect in teething: they are in themselves particular complaints, and as such must be treated; but as their origin is a certain provision of nature that cannot be meddled with to prevent it, the best treatment to be adopted is that, which will palliate its symptoms and smooth its course.

The two middle incisors, or cutting teeth, of the lower jaw are those that make, or ought to make, their appearance first: Those of the upper jaw follow three weeks or a month afterwards. Then come the two next, one on each side, below, and they are followed by those opposite to them above. An interval of some time follows, but at the 11th or 12th month, or from that age till the 14th or 15th, the two foremost grinders of the lower, and then those of the upper jaw cut the gum: about the 17th or 18th month, or sometimes later, the eye teeth come through; and lastly, between the twentieth and thirtieth months, the back grinders are cut, and the process in all ordinary cases is completed. The teeth are now in all twenty; and form the first or temporary set.

Here and there it happens that two more teeth are cut in each jaw, making up the number to twenty-four, and the teething is thereby prolonged. Sometimes too the child is born with one or two teeth already cut. In these cases it is commonly the middle incisor, or cutting teeth, that have thus irregularly thrust themselves forward: and, as they consist but of the crown and body, without any fangs, they are unsteadily placed, fixed upon, rather than in the gum; and being worse than useless, inasmuch as they are apt to irritate the nipple, and hinder the child in sucking, they should, at once be taken out. But instances of this kind are very rare; that of Richard the Third, true or not as it may be, will occur to every body.

However, it oftener happens that the teeth are irregular in the order of their being cut: the two outer incisors, for instance, coming

through before the middle ones, or sometimes the eye teeth even are the first that appear. In other cases, another kind of irregularity takes place, one only of a pair being cut in its proper turn, and the other remaining till one or both of a different pair is cut. Now and then, too, a tooth will be but half cut, as it were, growing slower than its fellows, and remaining for a long time only half as long as the rest. In this instance, if the gum happens to have been lanced, the mother and her friends wisely believe, that "the Doctor" has been to blame, that he has cut the top off; nor is it till it grows down to a level with the other teeth, that he stands acquitted in their eyes, if he does fully even then. Women take strange fancies into their heads where their children are concerned; so an idea of this kind is not to be marvelled at.

When the first symptoms of teething appear, little is to be done beyond attending to the bowels and lancing the gums. The child's wish to put hard substances into its mouth, and press them upon its gums, should be indulged: the nibbling of a coral, or better still an ivory ring, or something of a like kind, seems to afford relief to the pain, and perhaps may hasten the progress of the teeth, by causing the absorption, or wearing away by pressure of the half bony top of the socket, and of the gum that lies above. At all events it pleases the child; and as there is no harm in it if there is no positive good; it should not be forbade. But, whatever is used must be of such a size as to prevent the possibility of its being poked down the throat, and so choking the child.

In a short time things put on a more serious aspect: the little patient becomes more irritable; fever increases; the bowels get sadly out of order; and there is great heat of the head, and difficulty in bearing the light. Along with these signs, the gums swell, and instead of the ruddy colour of health put on a dark, livid, or whitish kind of hue. This shews that there has been neglect in not having had them lanced in time, and there is much danger of convulsions coming on; even although that operation is performed immediately a medical man is called in. A case of this sort happened not long ago. The child, a little girl, was cutting the eye and first molar or grinding teeth at the same time, and, consequently, no less than eight were at once making their way through the gum. The parents, with that carelessness often shewn by people who have many children, and never lost any, thought the poor child a little feverish, but that it would get better when the teeth came through; and did nothing at all, or only gave a little manna, or some other laxative, that was almost as bad as doing nothing; leaving nature to finish the rest in her own way. The fever, however, increased so much by the afternoon of the fourth day, that the medical officer of the station was called in. He came immediately, and saw no time was to be lost. The stretching of the skin was so great, that, on lancing the gums, at the first incision over the crown of the teeth, they came at once into view: the gums seemed to burst like the fingers of a too tight glove. For a moment the relief from pain was great, but it was given too late. Medicines would not act nor blisters rise, convulsions came on in about two hours afterwards; and at eight o'clock, hardly four hours from the time the medical attendant of the family first saw it, the child was a corpse. This is but one of those melancholy cases, of putting off sending for the Doctor too long.

The treatment of the child in teething must be according to the symptoms of the disease that it suffers from. For those of general irritation the gums, in the very first instance, should be freely lanced; and in doing this care should be taken, that every point, or projection on its crown, is cut down upon, so as to relieve the stretching of the gum in every place. If this is not done, the whole train of symptoms may be kept up; a single point now and then doing this as completely as the whole of the tooth. If the gum is not freely lanced, it would be as well not lanced at all.

However, a great prejudice exists in the minds of some people against lancing the gums. Many think that if a gum is lanced for one tooth, it must be lanced for the whole set, because they therefore are cut with difficulty. And others are fearful of the pain the child will suffer in the operation. Stories also are told, of death following in some cases by bleeding. The first idea is a mere prejudice, founded probably upon observing that the child who cuts the first teeth with much attendant irritation, does the same by all. This might be expected in one of an irritable constitution; and would be the case, whether the gums were lanced in the first or not. The pain too, suffered by the child in lancing, cannot, after all, be a very serious matter, not equal certainly to one hour's constitutional and local suffering, that it had endured before the operation. And as to bleeding to death; instances have, without doubt, been related of a child sucking the blood from a lanced gum till exhaustion and death followed: it is just possible that, in the hands of a bungling operator, a lancet may slip and cut a branch of the artery under the tongue: it is just possible, and that is all; but the

danger of convulsions, or some fatal end to a bad case, where lancing is neglected, is not only possible, but highly probable likewise.

As many of the readers of this paper may not take it ill if a few hints are given, on the method of performing the simple, but very important operation of lancing the gums; it will be best to give them here. It is easily managed; the lancet should be drawn along the edge or top of the gum, immediately over the tooth about to be cut; down,right through, till it is felt upon the tooth itself: and if it is a large one, one of the grinders, for instance, there should be another or even two incisions made across, at right angles with the former. In making them care should be taken that they cut down to the tooth, and that every point and corner is released; one projecting angle being, as before mentioned, enough to keep up irritation and all the very worst symptoms. It sometimes happens too that the operation must be repeated every two or three days, or even oftener; till the more violent symptoms, which rarely continue for more than ten days at a time, are over.

When this most important step has been taken, other means of allaying irritation may be pursued. Laxatives should be given of a kind according to the urgency of the case. The child should be kept perfectly cool and airy; it should have the cold bath every morning, or its body sponged over morning and evening with cold water: and the spine and belly may be rubbed with anodyne liniment or laudanum.

When the fever runs high, it must be treated like the general symptoms of fever. A purgative of two or three grains of calomel followed in an hour by a dose of castor oil, must immediately be given. Or, if there is reason to believe any thing that disagrees with the child is on the stomach, a gentle emetic of three or four grains of Ipecacuanha should be given first, and the calomel when the stomach is settled. The treatment of the fever of teething differs but little from that of Infantile Remittent, described in the first paper of this series. What is necessary beyond that, laid down there, is the free lancing of the gums, Some practitioners apply leeches to the head. in cases where there appears to be much determination of blood to that part; but the practice of putting leeches on the heads of children, when inflammation is not going on, or convulsions feared, is one of at least doubtful propriety. Lance the gums early, and freely, and keep the bowels well open, and few cases, of teething with fever, will end fatally, if any do.

Diarrhœa or purging is a more formidable disease. A child goes to bed, not much affected by the teeth that are coming through He has been a little irritable and fretful perhaps, for a day or two, and his bowels have been something more costive or relaxed than usual, but nothing further has been the matter with him. And so small a thing has it been considered that nothing has been done by the parents, nor have they even sent for "the Doctor," but awaited the time, when he may look in. In an hour or two after the child is gone to bed, purging comes on; and before the morning, some fifteen or twenty motions may have passed. These are sometimes very offensive, but at others they are almost without any odour at all. They are generally more or less slimy, of a greenish tinge at first, but gradually become lighter coloured, and with less of the natural appearance of the motions of an infant: and at length they are either quite watery, or consist of scanty portions of reddish mucous, the disease putting on, as it would seem, the form of dysentery, rather than of diarrhœa. The passing of the stools is, at some periods of the disease, attended with much bearing down and forcing; but at others they appear to come away without any exertion, in fact almost involuntarily.

A case like this must be taken in time. Of all the children who die during teething, more than half are said to die of diarrhœa. The first thing to be done, as in all other cases of disorder from this cause, is to freely lance the gums. For the medicinal part of the treatment, the usual means pursued in cases of bowel complaints in children, must be used here. Calomel, in doses of one and a half or two grains, must be given at intervals of four or five hours, till the secretions are changed in their kind; the bowels should be well rubbed with the anodyne balsam of the Pharmacopœia, or laudanum; and a flannel bandage ought to be put round the belly. Sometimes it is necessary to put on a mustard plaster, or a blister (children generally bear the latter better than they do the former, notwithstanding what may be said of its sometimes causing sores,) to the belly over the navel when the irritation of the bowels is very great; and opiate clysters should be administered: the latter are especially required when there is much tenesmus, or bearing down, in passing the stools. Besides these, the application of warm cloths, or flannel either dry or dipped in a warm decoction of poppy heads to the part, will be found useful in like cases.

When the bowel complaint is accompanied by sickness, a gentle emetic is needed: ipecacuanha is the best; and

the dose may be from three to five or six grains, according to the age of the patient. When the operation of the emetic has taken place, calomel and castor oil, or a dose of rhubarb and magnesia should be given, and afterwards calomel as before. Opiates taken internally are generally bad; and astringents rarely, if ever, of any service. Both opiates and astringents are in fact only to be used in the very worst cases, where it becomes evident that the child will be destroyed by the purging, unless it can be checked: and then it is too much to be feared, that remedies of any kind will be of no avail. As to chalk, and magnesia, or things of that nature, no great benefit can be expected from them, unless the complaint owes its origin to, or is kept up by acidity in the stomach or bowels. The remedies mainly to be trusted to, are, emetics, laxatives, calomel, anodyne frictions, blisters and injections: and, above all, lancing the gums.

When convulsions come on during teething, the usual means of curing them must be had recourse to. The gums should be immediately lanced; and, as this complaint rarely appears if the bowels are properly attended to, a brisk purgative should be given as soon as possible; and its action assisted and hastened by an injection. And this must be followed up by smaller doses of calomel, so as to change the secretions, and bring the bowels into proper order. Whether there is any swelling of the gum or not over the tooth, that is expected to appear, it should be lanced. Lancing is a precautionary measure, and should not be neglected; it may do much good, and can do no harm.

Besides these things, a warm bath should be got ready, and the child put into it as soon as possible. Emetics are sometimes useful, when it appears that the stomach is overloaded; if not, it is better not to give them during the fits, because they prevent the immediate giving of purgatives. In some cases, where convulsions are only apprehended, they are very useful: but when the fits have actually come on, the warm bath; tincture of assafœtida; aniseed water; a little ammonia or æther, if the countenance is pale; or a leech or two to the temples, if it is very much flushed; are the best remedies. Dr. Underwood strongly recommends oil of rue, but it does not seem to have come into very general use. If the convulsions are repeated, a blister to the back of the neck may be applied; but when they arise from teething only, they rarely come on again, when the causes of irritation are removed by the means before laid down. Should the child not die of them at first, he may be expected to recover, when the bowels have been properly relieved, and the gums well lanced: that is, if the disease arises from teething alone. Should this sickness be owing to other causes, it is more difficult to heal; particularly when it is but a symptom of Hydrocephalus, or water in the head; in which case it can only be cured by what will cure that disease.

It has been thus attempted briefly to describe the process of teething, and the remedies for the most dangerous of the complaints that arise during its course. This paper cannot be better concluded, than by an extract from the invaluable work from whence much of what may be found useful in the treatment has been taken—Burn's on Midwifery, and the diseases of women and children. "It is not easy," says that great authority, "to describe the different symptoms which occur during dentition, or may be connected with it; but one general rule must be laid down, namely, to treat them as we would do in any other circumstance, with the additional precaution of cutting the gum."

SELECTIONS.

OXIDES OF MERCURY.

a. Protoxide of Mercury.

Pure protoxide of Mercury is black. A very gentle heat converts it into metallic mercury and peroxide of mercury. A strong heat decomposes it into metallic mercury and oxygen gas. When treated by various acids, and particularly when free alcali is present, the protoxide likewise very often falls into metallic mercury and peroxide. The solution of the protoxide is best obtained by treating an excess of the metal with nitric acid.—Some of the neutral salts of protoxide of mercury dissolve only partially in water, being decomposed into an acid soluble salt, and a basic salt which is not soluble. The neutral nitrate of protoxide of mercury is a salt of this description.

The solutions of protoxide of mercury behave towards reagents as follows:

A solution of *Potash* produces in solutions of protoxide of mercury, a black precipitate, which is insoluble in an excess of the precipitant.

Ammonia produces in solutions of protoxide of mercury, a black precipitate, which is insoluble in an excess of ammonia.

A solution of *Carbonate of Potash* produces in solutions of protoxide of mercury, a dirty yellow precipitate, which boiling renders black.

A solution of *Bicarbonate of Potash* produces a white precipitate, which turns black when boiled. Carbonic acid gas is discharged during the boiling.

A solution of *Carbonate of Ammonia* produces in solutions of protoxide of mercury, in small quantity a grey, in larger quantity a black precipitate.

A solution of *Phosphate of Soda* gives with solutions of protoxide of mercury a white precipitate.

A solution of *Oxalic Acid* produces in solutions of protoxide of mercury, a white precipitate.

A solution of *Prussiate of Potash* produces in solutions of protoxide of mercury a white gelatinous precipitate.

A solution of *Red Prussiate of Potash* produces in solutions of protoxide of mercury, a reddish brown precipitate, which after some time becomes white.

Hydrosulphuret of Ammonia produces immediately, in solutions of protoxide of mercury, a black precipitate, which is not only insoluble in an excess of the precipitant, but also in ammonia. It partially dissolves in a solution of pure potash, leaving a black powder, which on being brought upon a filter and rubbed with a glass rod, proves to be metallic mercury. The filtered alcaline solution, on being supersaturated by an acid, affords a black precipitate of sulphuret of mercury.

Liquid Sulphuretted Hydrogen, or a current of *Sulphuretted Hydrogen Gas*, produces immediately, either in neutral or acid solutions of protoxide of mercury, a black precipitate. This is the case even when much less sulphuretted hydrogen gas is employed, than is necessary for the complete saturation of the solution of protoxide of mercury.

A bar of *Metallic Zinc* throws down mercury in the metallic state, in the form of a grey coating, which is an amalgam of zinc and mercury.

The solutions of protoxide of mercury can also be recognised from their behaviour with the following reagents.

Muriatic Acid and solutions of the *Chlorides* produce in solutions of protoxide of mercury, even when added in the smallest quantities, a white precipitate, which is insoluble in simple acids, and is rendered black by ammonia.

A solution of *Iodide of Potassium* produces in solutions of protoxide of mercury, a greenish yellow precipitate, which a greater addition of the reagent renders blackish, and a still greater dissolves.

A solution of *Chromate of Potash* gives a red precipitate with solutions of protoxide of mercury.

A drop of a solution of protoxide of mercury placed upon a piece of bright *copper*, and rubbed off with paper, after having been some time in contact, leaves upon the copper a silvery stain, which disappears when it is heated to redness.

The salts of protoxide of mercury which are soluble in water, are decomposed and volatilized by a red heat.

The solutions of the protosalts of mercury redden litmus paper.

The salts of protoxide of mercury which are insoluble in water, can, for the most part, be dissolved in diluted nitric acid. The acid solution produces with muriatic acid a white precipitate, which ammonia turns black but does not dissolve.

If the protosalts of mercury are mingled with dry soda, placed in a glass tube closed at one end, and heated to redness by the flame of the *Blowpipe*, they are reduced, and mercury sublimes in the form of a grey powder, which on being rubbed together by a glass rod, can easily be seen to form globules of metallic mercury. (Berzelius: *Ueber die Anwendung des Löthrohrs*, p. 101.)

The solutions of the protosalts of mercury can easily be detected by their behaviour towards muriatic acid, and by the behaviour of the precipitate thus formed towards ammonia. The conversion of its white colour to black, by the action of the latter reagent, is a character which distinguishes the mercurial precipitate from that produced by muriatic acid in the solutions of oxide of silver. In the dry way, it is very easy to prove the presence of mercury, by the production of the globules of that metal.

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b. Peroxide of Mercury.

Pure peroxide of mercury is commonly crystalline, and then possesses a brick-red colour; but when it is very finely pulverised, it becomes yellowish. A gentle heat turns it black; but the brick-red colour returns as the heat is diminished. A strong heat decomposes it into oxygen gas and metallic mercury.—If peroxide of mercury is supposed to be adulterated with red lead, it should be put into a small glass tube closed at one end, and be exposed to heat till the peroxide of mercury is completely decomposed. If red lead be present, the operation yields fused protoxide of lead.—If peroxide of mercury, adulterated with brick-dust, be treated in the same manner, the brick-dust remains behind unchanged.

Peroxide of mercury easily dissolves in acids. The acid solution behaves towards reagents precisely like solutions of the salts of peroxide of mercury which are soluble in water.

A solution of *Potash* produces in solutions of peroxide of mercury, a yellow precipitate, which is insoluble in an excess of potash. If too small a quantity of the precipitant be applied to the solution of peroxide of mercury, the precipitate it reddish brown.—If the mercurial solution contain muriate of ammonia, potash produces a white precipitate. And when also the solution contains very much free acid, potash produces a whitish precipitate.

Ammonia produces in solutions of the persalts of mercury, a white precipitate, not soluble in an excess of the precipitant.

A solution of *Carbonate of Potash* produces in solutions of peroxide of mercury, a reddish brown precipitate, which is insoluble in an excess of carbonate of potash. If the solution of mercury contain muriate of ammonia, carbonate of potash produces a white precipitate.

A solution of *Bicarbonate of Potash*, added to solutions of pernitrate or persulphate of mercury, produces, under disengagement of carbonic acid gas, a brownish red precipitate. A solution of perchloride of mercury is, at first, not troubled by a solution of bicarbonate of potash; after some time, however, it deposits a dark reddish brown precipitate.

A solution of *Carbonate of Ammonia* produces in solutions of peroxide of mercury a white precipitate.

A solution of *Phosphate of Soda*, added to solutions of pernitrate or persulphate of mercury, produces a white precipitate; but added to solutions of perchloride of mercury, it only occasions a very slight troubling.

A solution of *Oxalic Acid* produces in solutions of pernitrate and persulphate of mercury a white precipitate; but in perchloride of mercury, it forms no precipitate.

A solution of *Prussiate of Potash* produces in solutions of peroxide of mercury, a white precipitate, which after some reposure becomes blue, in consequence of the formation of Prussian blue.

A solution of *Red Prussiate of Potash* produces in solutions of pernitrate and persulphate of mercury, a yellow precipitate; in solutions of perchloride, no precipitate.

Hydrosulphuret of Ammonia, when dropped, in very small quantities, into solutions of peroxide of mercury, produces, where it comes into contact with the liquid, a black precipitate. But this precipitate becomes completely white when the mixture is shaken, even though much of the salt of mercury remains in solution undecomposed. The white precipitate, formed by agitating the black one in the liquid, remains a very long time in suspension. If more hydrosulphuret of ammonia is gradually added to the solution, the resulting precipitate is a mixture of black and white, and if an excess of the precipitant is added, the precipitate, which does not redissolve in the cold, is rendered perfectly black. The precipitate is also insoluble in ammonia, but it dissolves completely in a solution of potash. It can be reprecipitated from the alcaline solution, by supersaturating it with an acid.

Liquid Sulphuretted Hydrogen, or a current of *Sulphuretted Hydrogen Gas*, behaves both with acid and neutral solutions of peroxide of mercury in the same manner as the preceding reagent, but when sulphuretted hydrogen is employed, the phenomena can be better observed than with hydrosulphuret of ammonia.

Metallic Zinc acts with solutions of the peroxide, in the same manner as with solutions of the protoxide.

The solutions of peroxide of mercury can also be recognised by their behaviour with the following reagents:

A solution of *Iodide of Potassium* produces in solutions of peroxide of mercury a cinnabar red precipitate, which dissolves either in an excess of the iodide of potassium or of the solution of peroxide of mercury. It is also soluble in muriatic acid.

A solution of *Chromate of Potash* produces in solutions of peroxide of mercury, provided they be not very dilute, a yellowish red precipitate.

Towards *Metallic Copper*, solutions of peroxide of mercury behave in the same manner as solutions of the protoxide.

When heated to redness, the persalts of mercury which are soluble in water, are decomposed in the same manner as the soluble protosalts.

Solutions of the neutral persalts of mercury redden litmus paper.

The salts of peroxide of mercury which are insoluble in water, nearly all dissolve in acids. The presence of peroxide of mercury in the acid solution is best detected by a very gradual addition of liquid sulphuretted hydrogen. When a small quantity of this reagent is mingled with an excess of a solution of peroxide of mercury, it produces a white precipitate, which remains a long time in suspension. When an excess of liquid sulphuretted hydrogen is added, the precipitate becomes both black and dense.

Before the *Blowpipe*, the persalts, like the protosalts, are reduced to metallic mercury by being treated with soda.

The salts of peroxide of mercury can be very easily recognised from their behaviour with hydrosulphuret of ammonia, or, as this is too concentrated, better from their be-

haviour with liquid sulphuretted hydrogen. In the dry way, the operator can easily satisfy himself of the presence of mercury, by the production of the globules of that metal.

The presence of such organic substances as cannot be volatilized without decomposition, has a very considerable influence over the behaviour of solutions of peroxide or perchloride of mercury, towards reagents. This is the case even when the solutions are not coloured by the organic matter. If, for example, sugar, or non-volatile organic acids be added to a solution of peroxide of mercury, then the solution, on being tested with an excess of potash, gives no precipitate if but a small quantity of peroxide of mercury be present, or a dirty yellow precipitate if a large quantity of peroxide be present. In both cases, however, the solution, after some time, deposits a heavy black precipitate, which contains a very large quantity of metallic mercury. This black precipitate is immediately produced when the solution is boiled. The same appearances are exhibited when, instead of potash, a solution of carbonate of soda or of potash is employed. Without the addition of an alcali, the reduction to metallic mercury does not take place. Ammonia produces in such solutions of peroxide of mercury a white precipitate, which continues white for a long time, and upon being boiled merely blackens partially.

When solutions of peroxide of mercury are strongly coloured by organic substances;—when, for example, they contain red wine,—they immediately produce with solutions of potash, dark coloured precipitates of various hues. These are turned black by reposure, and still more rapidly by boiling. They contain metallic mercury. White wine containing a large quantity of perchloride of mercury acquires from a solution of potash, a brownish red colour, but affords no immediate precipitate. After some time, however, or more speedily if boiled, this solution produces a dirty brownish red, and finally a grey precipitate.

When hydrosulphuret of ammonia, or liquid sulphuretted hydrogen, is added in excess to solutions of mercury which contain much organic matter, a precipitate of sulphuret of mercury is produced; but when the solutions are strongly coloured, the precipitate is commonly difficult to be seen. That it may be determined with certainty, whether the precipitated sulphuret contains mercury, it must be filtered, dried, mingled with soda in a little glass tube closed at one end, and heated before the blowpipe. If mercury be present, it is reduced and sublimed. But as the presence of certain organic substances has the effect of making the sulphuret of mercury remain a very long time in suspension in the solution, and frequently of partly or totally preventing its filtration, the operator must employ sulphuretted hydrogen as the precipitant, only when the quantity of mercury is very considerable. To detect a very small quantity of mercury in such solutions, it is best to employ a blank copperplate. This is placed in the solutions, which must either be neutral or not too strongly acid; though, indeed, the mercury can be precipitated by copper, even from an alcaline solution. The precipitation is also thus effected, even when the solution is very deeply coloured and contains organic substances of every description. The copper, after some time, acquires a grey coating, if the solution contain the slightest traces of mercury. The grey coating, on being rubbed with paper, gives a silvery appearance to the copper, but one which a gentle heat is sufficient to drive away. When the quantity of the mercury in solution is extremely small, the silvery appearance produced upon the copper is less distinct, because the characteristic colour of the copper shines through the thin coating of mercury. In this case, the operator must heat the copper in several spots, and thus restore its own pure colour. The slight silvery appearance on the places which have not been heated, is then rendered more striking by contrast.

When peroxide of mercury is contained in pasty or solid organic substances which are not soluble in water, they are, if possible, to be dissolved in ammonia. The precipitate produced by albumen in solutions of peroxide or perchloride of mercury, is insoluble in water, but easily soluble in ammonia, or in a solution of potash. The mercury can be precipitated from the ammoniacal solution by hydrosulphuret of ammonia; but the sulphuret of mercury remains a very long time suspended in the solution and can scarcely be separated from it. Yet its separation is absolutely necessary, that it may be examined for mercury before the blowpipe. It is therefore much better to place a blank copperplate in the ammoniacal solution, from which, as well as from a neutral or slightly acid solution, the mercury can be precipitated by this metal. The copper acquires a grey surface, which, on being rubbed by paper becomes bright and silvery. Even slight traces of mercury can be thus detected in the ammoniacal solution. It is probable that the presence of mercury in blood, should this fluid contain that metal, could also be best detected by this process; because all the constituents of blood are soluble in an excess of ammonia.

The operator must not employ a solution of potash, instead of ammonia, in these experiments. The presence of mercury cannot be detected in a solution of potash by hydrosulphuret of ammonia; for the resulting sulphuret of mercury remains in solution, if a sufficient quantity of potash be present. Mercury can be precipitated from such a solution by copperplate, yet not so effectually as from an ammoniacal solution.

When the mercurial organic substance is soluble neither in water nor in ammonia, it is customary to digest it with nitric acid, and

to seek for the mercury in the nitric acid solution. But this method is often attended by disadvantages, particularly when the quantity of the organic substance is considerable and that of the mercury very small. It is better in such cases to adopt the process which follows: The dry substance is mingled with about three or four times its weight of carbonate of soda or carbonate of potash, and the mixture is placed in a retort which is large enough to contain four times as much as the bulk of the mixture. A sufficient quantity of water is then added to make the whole into a paste, and the retort is shaken till the dry substance is properly mingled with the water. If the substance for examination is of a pasty consistence, it must be mingled with carbonate of soda and then dried at a very gentle heat, that it may be brought into a fit state to be inserted into the retort. The neck of the retort is then connected, by means of a cork, with a receiver, but the juncture must not be quite air tight. The retort is then gradually heated, and the heat is increased till the bottom of the retort becomes red hot.—When the quantity of the substance for examination is inconsiderable, so that the operation can be performed in a small retort, the heat can be best applied by the flame of a spirit lamp with circular wick; but when the quantity is large, it is necessary, of course, to employ a charcoal fire. The mass in the retort commonly swells up very much, and the operator must take great care that it does not rise into the neck. After the cooling of the apparatus, the neck of the retort is broken off by the application of a hot coal, close to the body; the neck is afterwards split longitudinally, also by applying a hot coal. The interior of the neck is found to be covered with a glutinous brown empyreumatic oil, and at about an inch from the body of the retort, a quantity of minute globules of mercury are observable. The existence of these mercurial globules is demonstrated with most certainty, by rubbing the finger on the place where they appear to be fixed, and then examining the substance which is transferred to the finger. The globules of mercury can easily be recognised upon the finger, by the unassisted eye, or still better when a lens is employed. It is necessary to remove the globules from the glass prior to examination, lest the eye should be deceived; for small air bubbles fixed in the glutinous oil on the glass can easily be mistaken for globules of mercury.—When the organic substance contained but a small quantity of mercury, the whole of the latter remains in the neck of the retort, and none passes with the empyreumatic oil into the receiver. When no globules of mercury have been produced by this experiment, the operator may digest the oil which is in the receiver, together with that which remains in the broken neck of the retort, in nitric acid, and test the nitric acid solution for mercury. When, however, the preceding operation has been conducted with great care, and no mercury is deposited in the neck of the retort, it is seldom that its presence can be detected in the nitric acid solution.—*Rose's Analytical Chemistry, translated by Griffin.*

GONORRHŒA.

Case of Gonorrhœa, produced by Swallowing Gonorrhœal Discharge.

By Dr. Tazentre.

In the inaugural dissertation which he defended at the Faculty of Medicine at Paris, Dr. Tazentre laid down the following proposition: "Gonorrhœal matter taken into the stomach, and the *dose!* repeated for several days, may produce syphilitic inflammation of the urethra." This opinion was founded upon the following very remarkable fact, which we are assured is faithfully and exactly given.

M. N., fifty-five years of age, an old sailor of licentious habits, was married to a young woman of twenty. The matrimonial tie did not, however, confine him from drunkenness and debauchery. About three years after his marriage he suspected that his wife played him false, but he had no proof that his suspicions were well founded. Having contracted a very severe gonorrhœa from one of his mistresses, he was anxious to cohabit with his wife, with whom he had had no connexion for two or three months, in order that he might communicate the disease to her, and then accuse her of having infected him. By this stratagem he hoped to extract from her a confession of her frailty. But she had observed that he looked unwell and appeared to be suffering for many days, and she consequently refused the marital privilege. Baffled in this attempt, he had recourse to another expedient: he gave her secretly, mixed in milk or orgeat, a quantity of the gonorrhœal discharge, which he collected in a glass. He played this disgusting trick for eight or ten days, when one morning his helpmate unexpectedly entered the room, and detected him in the act of mixing something white with the milk that she had left upon the table for her breakfast. She accused him of doing something wrong, and declared she would have the milk analysed by a Chemist. Alarmed at her threat, he confessed his perfidy. The woman herself was very naturally apprehensive that injurious effects might arise from the sort of poison she had taken, and she communicated the whole story to her parents.

Dr. Tazentre was acquainted with the family, and he was consulted upon the occasion. As yet Madame N. complained of no pain in the genital organs, nor was any discharge or inflammation detected, upon an examination made by Dr. T. him-

self. As he could not anticipate what phenomena might result from this new mode of infection, he merely prescribed a light and temperate diet, and occasional warm baths. Four days afterwards the patient again applied to him, complaining of pains in the vagina. He again examined her, and found the parts tumid and painful; and around the urethra there was considerable inflammation. On the following days the pain, particularly in making water, became much more severe, and the discharge more abundant. She had, in fact, all the symptoms of virulent gonorrhœa. A small reddish-looking streak extended from the clitoris to the groin, the glands of which were painful.

As the nature of the case was no longer doubtful, an appropriate treatment was adopted, and in about a week mercury was given internally, as Dr. T. was convinced of the existence of constitutional disease. Under the influence of this treatment Madame N. soon perfectly recovered.

Having been entrusted with the secret of the family, Dr. Tazentre's assistance was asked for in the husband's case. He also recovered from his gonorrhœa in about three weeks. Dr. T. obtained from him a particular account of the whole circumstances of the above-related facts. He confessed every thing without reserve, and said that he had been anxious to communicate gonorrhœa to his wife, without exciting her suspicions, in order to force her to a disclosure of her infidelity. He added, that he was sure of infecting her by the means he adopted; for that formerly, wishing to revenge himself upon some person against whom he had a grudge, he had given him syphilis complicated with gonorrhœa, by administering, in the manner above mentioned, gonorrhœal discharge; and that it was in the colonies, where such tricks he declared were occasionally resorted to, that he had learned this mode of poisoning.

Dr. T. remarks, that this curious and unique fact, if confirmed by others of a similar nature, would be important in medical jurisprudence. It proves, in his opinion, the specific properties of gonorrhœal matter; and completely overthrows the doctrine which teaches us to regard gonorrhœa as a local inflammatory disease, which is always to be cured by a local antiphlogistic treatment. If the gonorrhœal matter is but the product of simple inflammation of the mucous membrane lining the urethra, how could it produce the disease without being placed in immediate contact with the part? If it were simply irritating, and not possessing any specific property, how could it traverse the digestive organs without injury to them, and localize itself and exert its action upon the urethra alone? The above case shews that there is a very different, but unknown kind of affinity between the discharge and the genital organs, which must be regarded as specific.

Practitioners, whose theory is opposed to this view, may object to the facts which have been stated. It may be said that Madame N. might have contracted gonorrhœa from the person with whom her husband suspected her of intriguing, or that she merely laboured under profuse leucorrhœa, which Dr. T. mistook for gonorrhœa. He did not overlook these objections in collecting information upon the case, and he was therefore doubly cautious in his inquiries. The account he gives he received from the parties themselves, and it cannot be supposed that they exaggerated the facts for the purpose of rendering themselves more culpable. The man with whom Madame N. had connexion (for the suspicions of her husband were well founded) was not affected with gonorrhœa. Dr. T. had undeniable proof of this fact: from him, therefore, her disease could not have originated. It was equally impossible for her to be deceived as to the nature of the disease. The severe pain she suffered in making water; the seat of the inflammation; the abundant discharge, thick and whitish at first, and subsequently of a greenish colour; the obstinacy of the inflammation; the red cord running from the clitoris to the groin, the glands of which became painful, form a series of symptoms that could not be mistaken for leucorrhœa; to which, besides, Madame N. had never been subject. Lastly, Dr. T. was persuaded that secondary symptoms would have occurred if he had not adopted the proper and precautionary practice.—*Lon. Med. and Phys. Jour. Sept.* 1833 *from Archiv. General.*

ROYAL COLLEGE OF SURGEONS.

The Council of the College has sent forth a "Statement," or exposition of the past or present state of the College, in reference to finances, library, museum, lectures, &c. by which it appears that the institution, since 1800, has been in a very flourishing condition. At the above date the property of the College did not exceed fifteen thousand pounds sterling, whereas the average receipts of the College, for the last three years, have amounted to upwards of eleven thousand pounds per annum! The average expenditure has been rather above eight thousand pounds per annum. The foregoing receipts are chiefly made up from the diplomas granted to Surgeons—but as there is no law to compel the student to take out a diploma on commencing practice, the

revenue from that source in somewhat uncertain. The museum requires a considerable sum annually, both for the conservation, and for additions. It is open to all properly introduced visitors from ten till four o'clock, on Mondays, Wednesdays, and Fridays—and to scientific foreigners every day. The library appears to be rapidly increasing, and already contains 16,000 volumes of standard works, ancient and modern. It is open every day from ten till four o'clock, for all members of the College and their articled students—except during the month of August.

"When the College received its Charter from the Crown, it derived no assistance of any kind from the other branches of the legislature. The Charter was simply permissive, allowing the Court of Examiners to examine those who might voluntarily present themselves, but giving them no legal authority whatever, to compel practioners in surgery to obtain their diploma, nor to prosecute those who took upon themselves to practice without it. The College, therefore, possessing no other influence than that of opinion, was left to rest altogether on its own character. Under these circumstances, it would never have advanced to its present state of prosperity, if it had failed to obtain the confidence of the profession and the public; and the best proof that it has succeeded in this object, is to be found in the increased and increasing number of the Members. In the first two years after the establishment of the College, the diploma was granted to 300, and in the last two years to not fewer than 700 Members."

The facts speak very strongly in favour of the general estimation in which the College diploma is held by the public; but they by no means prove that the said College, in respect to its government, is in equal estimation with the profession. The general public know nothing, and care nothing about the management of affairs of Lincoln's Inn Fields—all they know is, that the profession of a diploma from the only constituted surgical authority in the kingdom, is an indication that the individual has received a proper surgical education, and undergone a regular examination. When the Council tells us that they possess no power to compel students to become members of the College, they do not exhibit an overplus of candour. The student *is* obliged to become a member, if he has any ambition to succeed in his practice, either in town or country. In town, he is not eligible to fill any public situation in hospitals or dispensaries, without the diploma; and in the country, he well knows that a contemporary, with the diploma in his pocket, would soon expose him to the distrust of the place where they reside. Every body knows that it is not from any love to the College, or admiration of its government, that students present themselves for examination; it is from the necessity of having a testimonial of this kind, in practice—and there is no other source whence it can be procured, in this country, than the College of Surgeons. Let not the Council of the College, then, lay this flattering unction to their souls—or rather let them not expect to convince the profession, by such a piece of sophistry, that the institution is on the very best establishment, and guided by the best and wisest principles. While the principle of self-election is the grand and ruling principle of the College, it will be looked upon as a close borough, and consequently a corrupt one. It will never give satisfaction to the great body of its members, while the old leaven of corporation monopoly pervades the mass, and poisons, or is supposed to poison, the vital principle of general utility.

We are no enemies to the College of Surgeons—on the contrary, we think it has done much good, and that it will do much more. We would only admonish the rulers of that body not to shut their eyes to the change of times and circumstances around them; but to make every practical reform in good time.—*Medico-Chirurgical Review, October*, 1833.

CLINICAL LECTURE OF M. DUPUYTREN ON FISSURE OF THE ANUS.

[*Lecons Oracles. Tome troisième.*]

Fissure of the anus, though not commonly a dangerous, is an extremely painful affection. The patient usually complains of excessive torture, comparing it to the sensation produced by a red-hot iron introduced into the rectum. The expulsion of the fœces is productive of so much suffering, that he will even abstain from food to avoid it.

Fissure of the anus consists in a long superficial ulceration, developed near the margin of the anus, in the radiated folds of the mucous membrane. On separating the sides of the anus, and making the patient force down, a narrow-chink is perceived; its surface red, its edges tumid and callous. The introduction of the finger is often necessary to ascertain the extent to which it passes. It is situated more frequently on the lateral or posterior, than on the anterior face of the anus, and seldom attacks its whole circumference.

The severity of the action depends on the spasmodic contraction of the sphincter, which occurs on the contact of the smallest foreign body.

The causes of the complaint are numerous. Constipation—the passage of hardened feces, distending the gut and lacerating the mucous membrance—the clumsey exhibition of lavements, especially when metallic pipes are employed—hemorrhoidal complaints—the venereal virus.

The inefficacy of local applications has led to the employment of two measures, and of them almost alone—division of the sphincter, and cauterization with the nitrate of silver. Both are so painful, though generally successful, that a less severe method is a desideratum, M. Dupuytren has employed one, which, although not constantly effectual, is sufficiently fortunate to make it worthy of trial, prior to resorting to an operation.

Spasmodic contraction of the sphincter is the essence of the malady; the ulceration is only a secondary phenomenon. The object of M. Dupuytren's treatment is to moderate this spasm, which he does, by the introduction within the anus of the extract of belladonna. The composition of the ointment he employs is as follows:—

R. Axungiæ .....ps. vi.
Extracti belladonnæ.
Plumb. acet. ..... āā pm. j.
M.

A tent, of a moderate size, is smeared with this and passed into the rectum. The size of the tent is gradually increased. The constant employment of the ointment for some days frequently occasions complete relief.

Cases are related.

Case.—A young woman was admitted into the Hotel Dieu. She had been confined four months previously, and had experienced, for some weeks, severe pains in the anus, aggravated each time she went to stool, especially if the feces were bulky and hard. At the commencement of the complaint, the paroxysms of pain had only lasted for a few minutes, but they became more and more prolonged, and at the period of her admission would continue for several hours.

On examining the anus and drawing out the lower extremity of the gut, a very superficial fissure was discovered. The contraction of the sphincter was such that the little finger could with difficulty be introduced, and it occasioned much suffering. The ointment above stated was smeared on a tent of lint and passed into the gut several times daily. In fifteen days the patient was completely cured.

Ulcerated fissures are met with in three situations, below the sphincter, above it, and within its embrace.

Those below the sphincter occupy only the cutaneous texture, and do not involve the mucous; they occasion more or less pruritus, but produce no pain in defecation, nor contraction of the sphincter; they are, therefore, not very painful. Most commonly they are produced by the venereal virus. Those seated above the sphincter affect the mucous membrane, and require the speculum to disclose them. On passing the finger into the gut, there is felt in the situation of the fissures a hard knotted cord, pressure on which occasions acute pain. They occasion tenesmus on going to stool, relieved after its excretion. The feces are smeared with puriform mucus, and with blood on the side of the fissures. They are commonly due to the ulceration of internal hemorrhoids, occasioned by the passage of hardened fecal matters. Those fissures situated within the sphincter are the most severe affections of the whole, and are accompanied with the spasmodic contraction of the sphincter.

Fissures of the first and second description are usually cured without an operation, by the application of ointment, injections, &c. But in the last mentioned kind of fissure the most speedy and most effectual treatment consists in the operation first recommended by M. Boyer.

Case.—Angelica Delhaye, æt: 24, of good constitution, and regular, had had several children. She was admitted into the Hotel Dieu with several fissures of the anus, and with excrescences. The anus was contracted. She rarely went to stool, and when she did so, she had dreadful suffering, prolonged for several hours after the evacuation.—Most commonly the feces were mixed with a great quantity of blood and mucus. The patient's health was impaired—the surface of the body was pallid and puffy, and she frequently had fever. The disease had existed for several years, was attributable to no known cause, had been attended with little inconvenience at first, and had increased by slow degrees.

After preparatory treatment for a few days, M. Dupuytren excised the excrescence and divided the fissures with a probe-pointed bistoury; several incisions were necessary. A tent of lint, of the size of the finger, was introduced into the anus to prevent the sides of the incision from uniting.

On the same day the patient had a copious stool, accompanied by considerable loss of blood, but unattended with the usual severity of pain. A new tent was instantly re-placed in the rectum. The dressing was re-applied every day and every time the patient had a stool. In twenty-two days after the operation she left the hospital cured. —*Medico-Chirurgical Review, Oct.* 1833.

CLINICAL OBSERVATIONS, BY DR. STEINMETZ OF PYRMONT.

I.—*Croup.*

The inefficacy of the ordinary treatment by leeches and calomel, induced Dr. S. to trust almost entirely to the steady employment of emetics. The usual formula he has used is three grains of emetic tartar dissolved in an ounce of water, to be sweetened with sugar. A dessert spoonful may be given at first, and then every five minutes a tea spoonful, until very free vomiting be induced. He has sometimes added three grains of sulphate of copper, in cases which required immediate relief. The nausea and occasional retching should be kept up till the danger be over.

The success which Dr. S. has derived from this treatment is stated to be very gratifying.

II.—*Excision of the Clavicle.*

A man, aged 31, had been afflicted with scrofulous tumours and abscesses for many years. One of these had formed over the right clavicle, and when it broke, the bone was discovered to be extensively carious. The patient's health becoming gradually more and more infirm, and the local malady not improving, it was determined to extirpate the diseased clavicle.

This was easily done by a cautious dissection. Although very little blood was lost, the patient was exceedingly exhausted, and required active stimulants to restore him. The wound was quite closed in seven weeks, and the use of the arm was eventually little impaired. In the place of the removed clavicle, a firm cartilaginous deposit had been formed. It was flattened at its sternal, and more rounded at its acromial extremity; and here a few long nuclei were observed upon dissection, the patient having died of consumption, four or five years after the operation.—*Medico-Chirurgical Review, October*, 1833.

MR. WARDROP ON SURGICAL OPERATIONS.

The only instance I recollect of having given wine to a patient during an operation, for several years past, was in the case of a youth, who, though very desirous of having his limb amputated from the torture he had endured by the disease, when the moment arrived, and every preparation for the operation was made, lost courage. Having been extremely reduced in strength and flesh, I ventured, as the only means that occurred to me, to give him wine. Such was its exhilarating effect, that he almost immediately submitted to the operation, and bore it with fortitude. Having drunk a whole bottle of a light French wine, he was in a state of intoxication for some hours afterwards, during which time it was necessary carefully to watch the stump, as it was difficult to keep him quiet; but the result was most favourable, for he fell soundly asleep, and never had any subsequent febrile symptom. Most part of the wound united.

Bodily and Mental Tranquility after operations.

Patients cannot be kept too quiet after operations, or, at least, until there is no longer a risk of febrile excitement. But even when the danger of fever has passed, the tranquillity of the body essentially contributes to the healing of the wound. If you are in the habit of daily visiting a person who has a granulating wound you will be struck with some change in its appearance whenever the patient has taken any bodily exercise. He ought, therefore, always to be warned, that however certain his ultimate recovery may be, still the complete repose of the body will limit the period of his confinement. It is the same with regard to the effects of mental excitement; and, therefore, the mind ought to be kept as tranquil as the body, when a person has undergone a severe operation, even the slightest attempt to employ the mind, for purposes which on other occasions would give it no fatigue, will now create great excitement, and this will always be characterized by a corresponding change in the state of the wound. When a patient's mind has been much excited, it will generally be found, that besides the influence of such excitement on the wound, the digestive organs have become more or less deranged, and particularly the biliary secretions. In such cases, a large dose of calomel, not less than five grains, uncombined with any other medicine, often produces the most beneficial effects.

Effect of Salutary Moral Excitement.

This obstruction from all mental excitement, must, however, be extended only to a certain period of convalescence. A time will arrive when the patient, who could not endure, without suffering the most trifling subject of conversation, begins to take an interest in objects that are around him, and seeks for the society of those who are most congenial to his feelings, and if care be taken to limit this excitement, it will rather assist than protract his recovery. It is the complete seclusion from all moral excitement that constitutes the punishment of the criminal who is condemned to solitary confinement.

The powerful and reciproeal influenee of the mind on the body should never eseape eonsideration in the treatment of diseases; you cannot prescribe successfully for the one without deliberating on the eireumstances eonneeted with the other. A eertain quantity of exeitement would, indeed, seem essential to the vigour and aetivity of the physieal frame; and nothing eontributes more effectually to the development of the moral and physical constitution of man; than this salutary degree of mental exeitement, beginning even from childhood.

This influenee of mental exeitement exemplified in convaleseents of all ages, and in every situation and condition in life, though it is, perhaps, more striking in soldiers and sailors, from the intensity of the passions to which they are exposed, and the high gratification they derive from the success of their exploits. There are many very remarkable examples in military history of soldiers who, while in a state of great exhaustion from disease, have been suddenly called on to exeeute some arduous and severe duty, in performing which, their debilitated frames, instead of suffering from the task, have reeruited their strength, and that, too, apparently in proportion to the difficulty, fatigue, and danger of the enterprize. It is a remarkable fact, that when a victorious army is advancing through an unhealthy country, and often undergoing the severest privations which are inseparable from their situation, the sufferings which they undergo are small when eompared with those which the soldiers of the retreating army endure, and so it is with sick sailors who have been often known to make the most extraordinary exertions, without injury to their health, when called from the bed of illness, either to join in battle, or assist in saving the vessel from being wreeked. A lieutenant of the navy had from hard drinking rendered himself unfit for his ordinary duties, and was eonfined to his bed; his ship was placed in imminent danger during a storm: he arose from his eouch, and made the most aetive exertions, during which, both his body and mind recovered their wonted vigour, but when the danger was over, he returned to his bed and immediately relapsed into his former state of insensibility! It is even so with domestic animals,—the sheep who has the greatest range of pasture is the most healthy, and the horse who has to perform the greatest variety of labour and exertions consistent with his powers, is always in the highest condition.

It is from this principle of moral influence, too, that invalids chiefly derive such extraordinary benefit from "changing the air," as it is usually expressed, and hence you should attentively watch for the period of convaleseence which is marked by the patient's own desire to effect that object, when it will be highly beneficial for his recovery after an operation, not only to be removed into another apartment, but to some new situation or place, more particularly where he may enjoy the cheerful and salutary air of the country.

Exhibition of Medicines.

Medicines are not, however, to be entirely disregarded in calming the mind, and producing that soothing moral influenee which is so desirable after an operation. Of this elass, of remedies are camphor, galbanum, opium, hyosciamus, and other narcoties.

The aeute pain of an operation, it has already been observed, is to be relieved with opium, and that, too, in full doses. Besides giving a large dose of laudanum before an operation, and after it a couple of grains of erude opium combined with calomel, for the reasons formerly mentioned, a pill consisting of one grain of opium may be taken every hour subsequently, until the pain is relieved and the patient falls asleep. After the more severe operations, a full dose of opium ought to be continued every night as long as its effects are beneficial. It is a mistaken notion, that the free exhibition of opium under such eircumstanees is hurtful to the system. On the contrary, by alleviating pain, you always mitigate or subdue disease, and thus allow the natural processes to be less interrupted, and the alvine evacuations, as well as the other functions, to be more regularly performed.

It has already been mentioned, that operations sometimes prove fatal, either from the exeessive dread which the patient has of the pain he is to endure, or from his fear of the danger of the operation. In such eases, in place of the inflammatory symptoms coming on after the operation the pulse, which is depressed, never again acquires its usual strength, and the whole nervous system seems to receive a violent shock, from which it cannot recover. Examples of this are often observed after severe injuries and gun-shot wounds. Women sometimes die after parturition, under circumstances apparently similar. When a patient is in this state of collapse, in place of depletion, and the antiphlogistic regimen, it is usual to give cordials. Wine, camphor, ammonia, and opium, are generally employed under such circumstances, and given in doses and at intervals proportioned to the severity of the symptoms.

Consecutive Treatment of the Wound in different Temperaments and Constitutions.

Peculiarities of constitution will always require much consideration in the treatment of patients after operations. Wounds heal very readily by adhesion in those who are of a scrofulous diathesis; but if the wound heal by granulation, and that process be extremely tedious, the sore sooner or later acquires a scrofulous character, in this state the general system of treatment becomes necessary, which will be pointed out when considering the subject of scrofula.—If, too, an operation be performed on a person labouring under the secondary symptoms of syphilis, the wound may heal by the first intention, but it will more probably granulate, and soon exhibit all the characters of a syphilitic ulcer, which ulcer must be treated like other secondary symptoms of syphilis.

The treatment to be employed in gouty constitutions, should any symptom of that disease appear after an operation, ought to consist in the employment of those means which are best calculated to remove gout under any other circumstances. The colchicum is here a most valuable remedy, combining it with the carbonate and sulphates of magnesia; or it may be taken in a common saline draught. Fifteen or twenty drops of the wine of colchicum, with a scruple of the carbonate of magnesia, and two drachms of the sulphate of magnesia, dissolved in peppermint water, or any of the bitter infusions, may be given once or twice a day, as symptoms indicate. Five grains of the powder of colchicum seeds, with rhubarb, is also a useful mode of exhibiting that remedy, and there is an extract of the acetate much in use, from which I have experienced the most decided benefit. One or two grains of this extract may either be taken singly or combined with the extract of hyoscyamus, or some other narcotic, once or twice daily.

Case.—I operated on a patient for a Hydrocele, who had repeatedly suffered from gout, and he deranged his stomach by a plentiful meal soon after the operation. In the evening of the same day, his whole scrotum became very much tumefied, and the skin of a bright rosy colour, accompanied by a white tongue, and a very feeble and frequent pulse. In place of bleeding him, I gave colchicum, under which treatment the arthritic inflammation which had attacked the scrotum, was rapidly subdued, and gout affected the great toe a few days afterwards. When an operation has been performed, and the wound is attacked with arthritic inflammation, some further treatment, besides these internal remedies, becomes necessary. This chiefly consists in the application of stimulants to a part of the body situated at a distance from the wound, in order to translate gout to that part. In performing operations on the eye, more particularly for the extraction of cataract, a disease which frequently exists amongst gouty people, I am in the habit of applying, with the greatest advantage, a large blister upon one or both legs, or sinapisms to the feet immediately after the operation, in order to create in the extremities a greater degree of irritation than the operation has produced in the eye. Thus, should any gout exist in the system, that disease will be more likely to affect the limbs than to attack the wounded eye.

Case.—A gentleman had long suffered from arthritic inflammation of his eye, accompanied by severe pain in the head. I recommended him to apply sinapisms to each foot, and being a man of great fortitude, he allowed them to remain on until so violent an inflammation ensued, that it terminated in ulceration of the skin, but the pain in his eyes and head was completely relieved, Some years afterwards, on inquiring if he had ever had any return of the inflammation in his eyes, he answered with a smile that the sinapism had completely and permanently relieved them!

Besides the use of blisters on the legs, the feet may be bathed in warm water, to which mustard or vinegar has been added A similar effect of local irritation as well as of depletion may sometimes be effected very beneficially by the application of a few leeches to the feet.

Case.—A lady had a disturbed action of the heart, which caused much anxiety, and having suffered from slight attacks of gout in her feet, at different periods of life, this, together with other circumstances, left no doubt in my mind of the arthritic character of her complaint. A few leeches were applied to one of the feet, by which the heart's disturbed action was quickly subdued. On the following day the skin of the foot was much irritated from the leech-bites, and an erysipelatous inflammation ensued; which subsiding, gout attacked the foot, and the affection of the heart was effectually relieved.—What has now been said relative to gout applies also to rheumatism. It has already been observed, that it is by no means uncommon for a person who is afflicted with rheumatism, and who at the same time receives some internal injury, to have the injured part attacked by rheumatic inflammation. This also appears after operations, and is more distinctly illustrated in operations

performed on the eye than, perhaps, in operations on any other organ from the circumstance, probably, that the eye is very subject to rheumatic ophthalmia, as well as from the external characters of the disease being very remarkable.

CONCLUDING REMARKS.—In concluding these observations on the subject of surgical operations, it may be thought that I have been too tedious; but due attention to, and minute acquaintance with, every thing relative to this subject, will be of the greatest use to you in future practice, for there is no author to whom I can refer you who has treated, in so comprehensive a manner, on these points, as their importance appears to me to merit. Indeed, I am fully persuaded that many of those operations which are every day perfectly well performed, and which, nevertheless, prove unsuccessful, owe their want of success entirely to inattention to the previous and subsequent treatment of the patient, and to a disregard of those peculiarities of individual temperament, constitution, and system, which I have endeavoured to point out in the preceding lectures.—*Extract from Lectures on Surgery.—Lancet, August*, 1833.

MEDICAL GALVANISM.

M. Palabrat has been engaged for some time past in endeavours to discover the most convenient method of introducing remedial substances into any part of the body, by means of a galvanic current.

That this can be effected is easily shewn by employing such chemical agents as exert a visible and easily obvious reaction upon each other; thus if we lay a compress well-wetted with the hydriodate of potass upon one arm, and upon the other a solution of starch, a fine violet colour is immediately manifested upon establishing the circuit; if iodine be used, instead of the hydriodate, it is speedily found deposited upon the starch. It may be said that the substance which is thus invisibly transmitted from one part of the body to another, follows the surface of the skin, and is not conveyed directly through the interjacent textures, which are the moist conductors and firm part of the galvanic arc. M. P. is of a different opinion, and rests it on some experiments in which he not only well dried the skin of the arms, but covered a part of it with a gum-lac varnish; and yet was not any interruption to the galvanic phenomena. By proper management, the medicinal substance which we wish to be transmitted, may be caused either to remain in the body of the patient, or to be withdrawn from it. If we desire the former it will be necessary to employ acupuncturation at the same time.

M. P. assures us that he has met with very satisfactory success in the treatment of some cases which had resisted all ordinary remedies; he mentions particularly a case of enormous sarcocele, and of obstinate quartan fever. In the former, iodine was passed through the tumour; in the latter, quinine was introduced into the system.

The memoir was entrusted to MM. Majendie, Bacquerel, and Savart, who are to report upon it.—*Medico-Chirurgical Review, October*, 1833.

CASE OF AN ENCYSTED ABCESS OF THE CEREBELLUM COMMUNICATING OUTWARDLY.

The following very curious case, related by Dr. Scalvanti, of Pisa, is an interesting contribution to the pathology of the brain.

A soldier, aged 23, of a plethoric and healthy constitution, was admitted into the Royal Hospital of Santa Chiara, with the following symptoms, which had suddenly come on; active pyrexia, severe head-ache, stupor, hard, vibrating pulse, &c. The left parotid was swollen and inflamed. Active depletions speedily restored him; and all that he now complained of was a pain deep seated in the left ear, accompanied with tinnitus. Blisters and other topical means were tried, but to no purpose; he therefore left the hospital; but soon returned; and now, in addition to the otalgia, there was a swelling of the meatus externus, and he was tormented with head-ache. By cupping, antimonial ointment, &c. he was relieved, and enjoyed a respite for several days, but it was only a respite, for again came back all his distresses worse than ever; the head-ache was accompanied with violent pulsations and a feeling of burning heat; the patient was feverish and watchful, and the integuments over the squamous bone were puffy and inflamed; leeches were applied to the inside of the nostril, with considerable benefit; still there was the beating pain in the head, which at stated periods become much exacerbated. For about six days he was tolerably easy, but this deceitful calm was soon followed by another attack of suffering; the swelling of the integuments had now increased, and pressing them with the finger caused pain, and left a pit.

These alternations of suffering and relief, the distressing head-ache, which never altogether left the poor patient, and the immunity of the intellectual faculties, led Dr. S. to predict disease of the cerebellum, according to the opinion announced by Lallemand in his Anatomico-Pathological

Researches. A doubt existed, whether the cerebellum was primarily diseased, or subsequently to a disease of the internal ear. However this might be, the man became worse; in spite of occasional intervals of a few days ease, each attack was more severe and alarming; he became almost quite deaf and stupid, and the external swelling extended along the parietal and occipital bones.

A surgeon who was called in consultation differed in opinion from Dr. S. and recommended an incision upon the mastoid process. He considered that the disease was altogether external, and that no suppuration of the cerebellum could have taken place, because there were no symptoms of compression, and the intellect was little impaired. He was not aware of the results of Lallemand's researches, the incision was made, and the bone laid bare, but no appearance of disease was to be seen; the lips of the wound were however kept apart. The result seemed at first very gratifying; the head-ache and deafness were surprisingly relieved; and the external swelling much reduced. His physiognomy however became more stupid, and his speech betrayed a wavering state of mind. It is to be observed, that during the intervals of ease his appetite was always vigorous, unfortunately for himself he on one occasion had indulged to excess; he was seized with obstinate vomiting; became paralytic, and died on the 29th of June.

Dissection.—On cutting down to the bone, the temporal muscle was found to be healthy; the pericranium was somewhat thickened, and a spoonful of pus was found underneath it, between the squamous and zygomatic portions of the os temporis; a hole penetrated right through the bone, just above the meatus auditorius externus, and over the phrenological organ of destructiveness. The membranes of the brain were highly injected;—that portion of the left hemisphere, which occupies the middle and lateral fossa of the basis cranii, was very considerably increased in volume; the cerebral and fractuosities had disappeared, and the cerebral substance was unusually resistant and elastic; the dura mater was perforated opposite to the hole through the bone. Upon opening the lateral ventricles, it was observed that the left one was sensibly diminished in capacity; and right beneath it, a sac, or cavity of the size of a hen's egg was found; the medullary substance had been wasted away, so that the boundaries of the sac were formed by the cortical or grey portion—it terminated outwardly in a funnel shaped prolongation, which communicated by previously-mentioned apertures through the dura mater and the bone, with the abscess under the pericranium. The walls of the sac had a fibrous appearance, and altogether resembled an inflamed mucous membrane. The rest of the encephalon was normal.—Annali Universali.—*Medico-Chirurgical Review, October*, 1833.

EMPYEMA.

Cases of Empyema cured by Operation.

[*Gazette Medicale de Paris: Empyema, following Variola, cured by Operation.*]

Case I.— Pasquet Benjamin, twenty-five years of age, of a weak constitution, was admitted into the Hospital at Tours, on the 1st January, with intense fever and variolous eruption. So great was the agitation under which he laboured, that he could not be kept in bed. The eruption was imperfect. At the end of January the following symptoms existed: short, difficult, and rapid breathing; a sensation of oppression and heaviness at the diaphragm; a sense of suffocation upon the least motion; constant cough, incapability of lying on the right side. The left side of the chest was sensibly distended; the intercostal spaces being much broader than natural, and projecting at the lower and posterior parts. The heart was thrown towards the right side, and its pulsations were perceptible at the inferior part of the thorax. When the patient moved, fluctuation and undulation were evident even to the sight and hearing, without having recourse to auscultation.

February 1*st*.— The operation of empyema was performed by M. Herpin. The quantity of pus thrown out had so greatly depressed the diaphragm, that the incision was made between the 10th and 11th ribs, at about an inch from the costal angle, where the fluctuation was more evident. An incision was made in a fold of the skin, about two inches long, and parallel to the direction of the intercostal space. The pleura being exposed, an opening of two or three lines long was made into it with a bistoury. Liquid, inodorous pus, mingled with serous shreds, at first escaped by jets, and with force. When about a pint was evacuated, the wound was dressed with a compress of lint, with holes in it to admit of still further discharge. For several days the bed of the patient was soaked with pus. The discharge became more and more fœtid, and blackened the catheter, which was introduced each time the wound was dressed. The edges of the wound were tumefied and inflamed, and the patient was in pain and much agitated. His face became pale and anxious, eyes

sunken, skin of a dull colour, and there was great general depression. In this state he continued until the middle of March; he was then directed to take kino and quinine in infusion, and an injection was thrown into the wound of decoction of kino, with a few drops of solution of chlorate of lime. From this time he gradually improved; the pus became whiter, thicker, and of good quality. In a few days there was little or no suppuration, and on the second of May, the injections were discontinued. Three days afterwards, the patient, having eaten more than usual, was attacked with shivering and fever, and spasms of the abdominal muscles, particularly on the left side. The face and feet were œdematous, and the oppression and pain of the side returned as violently as at first.

May 6th. A large quantity of bloody pus was evacuated by means of a catheter, which was now again discoloured. The injections were repeated; low diet. He again improved. The pus now seemed to concentrate itself at the bottom of the pleural cavity, and grumous and fibrinous clots still passed through the catheter.

Towards the end of May there was very little discharge, and now, in order to introduce the catheter to the bottom of the purulent cavity, (about four or five inches deep from the wound,) it was necessary to overcome a resistance, which appeared to depend upon adhesion of the lungs with the pleura of the ribs and diaphragm.

May 30th. The injections were discontinued; the kino mixture was again given; and a blister was applied to the nape of the neck, and kept open for some days. From this period the patient was free from fever or oppression, and he gradually grew fat, and his skin assumed a healthier colour.

On the 2d July he was presented to the Medical Society of Tours. There was perfect resonance on the right side of the chest; the left side also gave a clear sound at the upper part, but at the inferior part, and around the spot where the operation had been performed, the sound was dull. It is to be observed, that this patient never expectorated pus, although he had coughed a good deal, and his breathing was impeded.

Case 2: *Empyema after Measles: Operation; Cure.*

This was the case of a child seven years of age, who had had measles, and been much neglected some days after the appearance of the eruption. Catarrh followed, and subsequent empyema, which caused a projection of the thorax near the inferior angle of the left scapula. M. Herpin made an opening with potassa fusa, and afterwards threw in injections with barley water and honey. The suppuration continued for six weeks, the wound then closed, and soon after the little patient complained of oppression and sense of suffocation. The wound was again opened, and suppuration went on for several weeks. The parents confessed that they had formerly laboured under syphilis. M. H. prescribed the following medicine: syrup of sarsaparilla, with deuto-chlorate of mercury, in appropriate doses. In a short time the suppuration diminished, the wound cicatrized, and the child was restored to health. The side of the thorax which had been affected did not, however, increase in size as the other, and this young person, who is now (1832) twenty-three years old, is a little deformed in shape, although in the enjoyment of good health.

Case 3: *Empyema after several attacks of Peripneumonia: Operation; Cure.*

A soldier, æt. twenty-six, after several attacks of peripneumonia, was affected with empyema, which caused a projection below the inferior angle of the right scapula. He entered the hospital the 27th March, and on the 23d of April an opening was made into the chest. An ichorus discharge of pus followed, which afterwards became so fetid that the patients all left the ward when he was dressed. Fever succeeded, which placed the patient in danger for several days. He took internally decoction of bark; and an injection of the same mixture was used, with a small quantity of a solution of chlorate of lime. The whole surface of the body was afterwards covered with a miliary eruption; the suppuration diminished, and was less fetid; the fever subsided. He became convalescent, and left the hospital perfectly cured on the 22d of May.

Case 4: *Symptoms of Constitutional Syphilis; Caries of the Ribs; Acute Pleuro-Pneumonia; Empyema. Operation, followed by a discharge for two years; Cure.*

M. R. a cavalry officer, æt. twenty-eight, of lymphatic constitution, had frequently had syphilis. He was admitted into Hospice de Versailles on the 19th August. He was treated for abscesses in different parts of the body, and went out convalescent November 6th. On the 22d he was again admitted, on account of a tumour situated

on the left side of the chest, above the sixth rib, which had appeared without any assignable cause. It was red, soft, and painful. Forty leeches were applied in two days, but the pain was not relieved. On the third day an incision was made, and it was ascertained, upon the introduction of a sound, that there was caries of the rib. The pain ceased for a very short time, but returned on the following day. There were now dyspnœa, dry and frequent cough, striated expectoration, and in fact every symptom of intense pleuro-pneumonia. He was bled and the next day was much exhausted and insensible. Revulsive remedies were employed. The right side of the chest and the neck were attacked with erysipelas. Delirium, and increased difficulty of breathing.

Notwithstanding this complication of severe symtoms, the pulmonary affection was soon relieved, and the expectoration was easier. The respiratory sound was heard in the right lung, but in the left it was feared that there was either congestion or effusion; and the subsequent dilatation of this side of the chest removed all doubt upon this point. As soon as the inflammatory symptoms had entirely subsided, a caustic issue was made. When the slough separated, above two pints of yellowish serum were discharged, in which was floating concreted albumen, which, by blocking up the opening, prevented at moments the exit of the fluid. A plug was afterwards inserted into the wound, which was covered with linen with holes made in it. In the course of the next few hours about ten ounces of fluid were evacuated, but, although the patient was much relieved, the suppuration continued fetid and abundant: even the expectoration was purulent. Injections of solution of chlorate of lime were employed, and immediately after the patient complained of tasting the chlorate in the throat. Reduced as he was to a state of emaciation, he was now attacked with acute articular rheumatism, which rendered it necessary to bleed him several times. The pains in the joints were removed, but inflammation of the periosteum remained upon the fibula and tibia. The former went off; but the latter terminated in an abscess, and left the bone exposed to the extent of four or five inches. In six weeks this wound was healed. The two abscesses in the thorax, namely, that of the carious rib, and that from the empyema, lasted a much longer time. Nearly two years elapsed before the discharge from the latter ceased, but ultimately the patient left the hospital perfeetly cured.—*London Medical and Physical Journal, September*, 1833.

GRANULAR INFLAMMATION OF THE OS TINCÆ.*

Our authors observe that this affection is rare, very little known, and no where described. It has escaped those who have not employed the speculum.

They divide the affection into two varieties, the snbacute and the chronic.

In the former there are pain and deep redness of the os tincæ. The elevations discovered by the specnlum are sometimes few in number, as large as peas, firm, and whitish; but more frequently numerous, of the size of millet-seed, whitish, and soft. From their interstices blood flows on the contact of the speculum, in examination with the finger, in coïtus, and in defecation. In the chronic variety the granulations are hard and small, whitish, or red and soft, and without redness or softening of the os tincæ itself.

Our authors are tempted to believe that these granulations are not always of the same character, or arising from the same source. Sometimes they have seen them distinctly depend on a dartrous contamination, (vice dartreux,) and on syphilis. Sometimes they co-exist when chronic, with induration of the cervix or fibrous tumour of the uterus. The disease is not generally formidable when unaccompanied by serious complications. The treatment must be adopted to the more obvious indications—emollients, with local depletion in the acute stage—more stimulating measures in the chronic— specific treatment when the cause is syphilitic. In the greater number of cases derivatives, caustics, &c. have been productive of much advantage. The great point is to discriminate accurately the affection and its characters.

Case 1.—Mad. A. Menet, æt. 35, mother of two children, lived luxuriously till the age of twenty-eight, when reverses of fortune obliged her to give lessons in music, which occasioned much exercise of body and of voice. Our authors observe that uterine affections are common among singers. The menstruation was profuse and irregular, there was leucorrhœa, considerable tumefaction of the uterus, surface of the os tincæ livid and studded with vesicular-like granulations, bleeding from the os tincæ during exploration, defecation, and coïtus; emaciation.

Bleeding from the arm to three palettes, cold injections, into the vagina, cupping on the sacrum and perinæum several times repeated, the Enghien mineral waters, and

* Mad. Boivin and M. Dugés, Traité des Maladies de l'Uterus, &c.

some cups of a bitter decoction daily, where the means adopted. In three months the patient was able to resume her occupations. She was directed to wear flannel, and to abstain from long walks.

Case 2.—The Countess de C. enjoyed good health till the age of 25, when she met with reverses in fortune. From this time she experienced feelings of weight and pain in the genital organs, with irregular menstruation. In 1824, these symptoms were so distressing, that the patient was obliged to keep her bed. On examination, the os tincæ was found of a reddish brown colour, soft, its anterior lip presenting two small white tumors, each of the size of a pea. This portion of the uterus was very painful, and, on raising the organ with the finger, pain was felt in the left iliac fossa—"a certain index of some morbid adhesion on this side."

Emollient baths—leeches to the pelvis—pills of extract of marigold (souci) and country air, were the means recommended. By the 26th May, the tumours had disappeared, and the patient was better in all respects. She took the baths of Plombieres. Absence from the husband was practised. In 1831, she was quite well. This lady's daughter has a similar affection.

We have introduced this and the preceding article, to lead practitioners to make more particular examinations than they often do, of the condition of the uterus. They may perceive how the symptoms, of which patients usually complain, are common to many local alterations, some of which are perhaps unknown, even by name, to the generality of medical men.—*Medico-Chirurgical Review, October*, 1833.

ULCERS OF THE OS TINCÆ.

The following remarks on, and cases of simple ulceration of the os tincæ, are taken from the work of Mad. Boivin and M. Dugés, to the first volume of which we have adverted at some length in a former number. The present subject is considered in the second volume of that able work.

M. Dupuytren has given some account of simple ulceration of the os tincæ. He observes that exploration with the finger only, is not sufficient for the discrimination of the affection, which is readily recognised by means of the speculum. On this head we may refer to our readers to a notice of a memoir by M. Ricord, in the last number of this Journal. M. Dupuytren proceeds to observe that the os tincæ being disclosed, the surgeon perceives on one or other lip superficial ulceration of a redish aspect, confined to the mucous membrane. M. Dupuytren recommends cauterizations.

M. Deplech has observed similar ulcers, and cured them by cauterization with the acid nitrate of mercury, many times applied. M. Majorlin observes that the size of the ulcers varies. Pains in the regions of the kidneys. A sensation of weight at the fundament, dragging in the groins, heat in the abdomen and enlargement of it as in hysteria, and frequent flushings of the countenance, with or without leucorrhœa, are, according to the same author, the symptoms usually attendant on the disease, M. Dupuytren has added-pain in coïtus.

Commencing cancerous ulcerations are often distinguished with extreme difficulty from simple ulcers. Local baths are some times successful in curing the complaint, and our authors relate one case in which sarsaparilla was equally effectual. Four cases are detailed.

Case.—Mad. Cher, wife of a carpenter, æt. 30, of delicate constitution, was unable to suckle her second child on account of milk abscess. In one month after her accouchement the catamenia returned, and flowed regularly for fifteen months. After this the woman complained of pains in the kidneys and in the right groin, and every fifteen days the menses appeared in profusion. A physician prescribed leeches, but without success. About two years after the accouchement our author was consulted.

On examining the parts he found considerable tumefaction of the os tincæ, and extensive though superficial, ulceration of its anterior lip. He prescribed the frequent application of leeches round the pelvis to the anus, cupping on the loins, mild aperients, decoction of sarsaparilla, and injections of decoction of poppies and belladonna. Besides these means, the patient was directed to use the warm-bath weekly. In five months the patient was cured; in the following year she became pregnant, and she has had no subsequent relapse.

Case.—Mad. Al., æt. 30, menstruated at the age of 15, married a few months afterwards, was a mother at 16, and, after that, had three natural labours, and three miscarriages, from the third to the sixth month. Each accouchement was followed by considerable loss of blood. This young lady had obstinate constipation, almost constant pains in the loins and inguinal regions, weight about the anus, sense of lassitude in the thighs, and slight leucorrhœa. Slight exercise fatigued, and coïtus was often very painful to her. Examined in January, 1828,

the uterus was found increased in length, and the orifice was extremely painful to the touch. By means of the speculum, the os tincæ was found to be about eighteen lines in diameter, of a deep red colour, denuded in parts of its mucous membrane. The exposed surface was of an intense red, contrasting with the lividity of the rest of the cervix.

The treatment employed consisted of leeches to the vulva, astringent injections followed by narcotic, slightly purgative lavements, dry cupping on various parts of the pelvis, flannel next the skin and hip baths. Besides these means absence from the husband was enjoined.

Mad. Al. became much better, and being allowed conjugal intercourse again, she soon became enciente. This was in November, 1828, and, in December, she had the usual symptoms preceding abortion. She was bled and kept in bed. In February the same symptoms were renewed, with violent cough. She was again bled, &c. The lady had a long and difficult labour. She recovered after it, but our author understands that her complaint has returned.

Our authors observe that they could narrate several cases of enlargement and ulceration of the cervix uteri, cured by repose, regimen, and antiphlogistic treatment. In the preceding case they deplore the premature return of the patient to connubial intercourse.— *Medico-Chirurgical Review, October*, 1833.

OBITUARY.—DR. DARWALL.

We have the melancholy task of recording the death, on Saturday, the 10th of August, after a short illness, of this eminent and respected physician; which lamented occurrence was occasioned by an injury received in the examination of a dead body, at the Birmingham Hospital, on Tuesday, the 30th July. During that day, Dr. Darwall was unsuspicious of having incurred any danger. He pursued his usual avocations—visited his patients—and, in the evening, walked in the Botanic Garden. Very early in the morning of Wednesday he was attacked with severe shivering, to which violent reaction soon succeeded, with inflammation of the absorbents of his left hand and arm. Although these symptoms subsided, under the skilful attentions of the professional friends who where soon assembled round him, his system never recovered the shock; and after eleven anxious days, during most of which sanguine hopes were entertained of his recovery, he breathed his last, in the 40th year of his age. The shortness of his last illness—its accidental origin—and the abrupt cessation of his extraordinary mental activity, are circumstances so painfully afflicting to his family and to his immediate friends, that even the very general concern that has been occasioned by these sad events, cannot, for the present, be expected to soften the poignancy of their sorrow. If great mental acuteness—if extensive learning—if a profound knowledge of medicine, united with the highest practical skill—if industry the most indefatigable, and benevolence no less enlightened than it was ardent, could have been any protection from an early death, the public might yet, for many years, have benefited by his ability and his experience. —*Medico-Chirurgical Review, Oct.* 1833.

THE INDIA
Journal of Medical Science.

CALCUTTA; MAY 1, 1834.

The readers of this Journal, in all probability, will have anticipated an apology from its conductors, for the numerous errors which they regret to say, have unfortunately, in spite of all their precautions, crept into the work. To contributors in particular such an apology is specially due, for their communications have here and there been sadly defaced in this way. In the hopes of mending matters, an experiment was tried of printing No. IV. at another press. The result has been any thing but a satisfactory one, and yet manifold as are the blemishes and errors of mechanical execution in that number, the trouble of correcting it exceeded that of overlooking all the preceding ones put together. Not the least annoying part of the business was, that errors are to be found in the published impression, which had no existence in the last proofs. These things are of a vexatious character, the more so as faults over which they had but a limited controul, may by some be attributed to the Editors. It is to be hoped, however, that this is the last time we shall be called upon to enter

into any statement of this kind, as we have at length come to a conclusive arrangement for the future printing of the work at the *Military Orphan Press*, and we would fain hope, that the mechanical appearance of the present number will give satisfaction, and be deemed a favorable pledge of what the work in that respect will continue to be. For the rest, we rely on a liberal and generous public. Our object is a good one, and we again entreat the support of such of our professional brethren as have not yet patronised the work—and of all, indeed, who would promote the spread of medical knowledge, and the improvement of the human mind in these vast regions.

The plan of our Editorials (such as they are,) would appear to be misunderstood in certain quarters. They serve the two-fold purpose of expressing our sense of the favours of kind contributors; and of giving further development in an untechnical manner, to topics handled differently in another department of the Journal. Professional readers should bear in mind, that many of our subscribers are not of the medical profession. It has all along been our anxious wish to include within the compass of the work, matter that would be interesting to such. The remarks then being chiefly intended for them, have been written (at least such has been our endeavour,) in a discursive and unelaborate manner, level with common understanding. Occasionally, however, when an opportunity may offer, the Editorial commentary will serve a higher purpose, and embrace a more comprehensive object. It will form the vehicle of discussing a subject of important public interest, or mooting any question having a direct bearing on the extension of professional utility, or the relief of human suffering. A proposal naturally falling in with this plan, will be found below.

Would our readers see the venerable Baron Larrey in propria persona, we beg to refer them to Mr. Atkinson's well-drawn Sketch in a preceding column. The reader will observe three things that may be said to be peculiar to French practice; viz. the use of the moxa, of the actual cautery, or red hot iron, and the mode of dressing a fractured limb, which latter seems indeed to be Baron Larrey's own. The burning of a little roll of Moxa or tinder, so to express it, on different parts of the body, was derived originally from the East. It is used either as a counter-irritant in deep seated pains, or as a maturating agent for promoting a purulent discharge. The use of the Moxa never has obtained the same favour with English practitioners that it has among our brethren of the French faculty. The same remark applies to the cautery, a remedy of very ancient use, both as an issue and to put a stop to hœmorrhage. For the former purpose Celsus recommends the cautery in consumption and epilepsy. 'Exulcerandus est ferro candente, uno loco sub mento, altero in gutture, duobus ad mammam utramque; item sub ossibus scapularum,* &c.' that is, under the chin, on the throat, on each breast and beneath the shoulder blades. In epilepsy, or falling sickness, after cupping and scarrifying, he advises—'ferro candente in occipito quoque et infra, qua summa vertebra cum capite committuntur adurere duobus locis, ut per ea perniciosus humor evadit,' to establish issues in two places with the actual cautery, one upon the occiput or hind-head, and the other lower down upon the first vertebra of the neck, so as to produce a copious drain. Ætius, a physician of Mesopotamia, in the 6th century, recommends cautery issues in palsy, and also in consumption, advising a circular form for the eschars, as tending

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* Lib. iii.

to protract their healing.† To this day cautery issues are a favourite remedy in Hindoostan, in various affections, especially spleen disease and muscular pains, and with reference to the recommendation of Ætius, it is a curious coincidence, that such issues are generally made in a circular form. Cauteries for the stoppage of bleeding are seldom used in British Surgery, save under peculiar circumstances, as bleeding from the mouth, palate tonsils, &c. such as may be witnessed in that terrible disease purpura hœmorrhagica. The following passage in the writings of one of the ablest Surgeons of his day, will give an impressive idea of what a forlorn hope the cautery was compared with the ligature. "BURNING IRONS were used by the ancients, merely because they knew of no other means of suppressing the bleeding; and we cannot wonder that the ancients were so curious in the degree of heat; or in the way in which it was applied; or in the shape of their irons, which was conical, that they might touch nothing, but the point of the bleeding artery; nor in the choice of their metals, preferring such as were susceptible of only a moderate degree of heat; for if they heated their irons too little, they did nothing; there was no eschar formed, and the bleeding was not stopped; if they burnt too much, the slough, though fully formed, fell off almost as soon as the iron was withdrawn. But let them burn ever so cautiously, the sloughs were to fall off sooner or later, and it made little difference whether they fell off on the first or on the second dressing—on the fourth or eighth day; and as they were in continual fear of this, they never undid the wound, without having a tourniquet round the limb. At every dressing the patient was tormented with the irons, and at every succeeding dressing he lost more blood, so that the last condition of that man was worse than the first.* What cause of thankfulness have we not all for the wonderful improvements that have taken place in Surgery since those days!

It will be in the recollection of some of our readers, that about three years ago, Dr. Wise published a work interspersed with many instructive cases, entitled "Observations on some diseases of the vascular system." His attention since would appear to have been intently turned towards the same subject. The paper which appears in our present number, forms as it were the ground-work and introduction to another of a more practical character, which is to follow in our next. The doctrine of the vitality of the blood is one which has occasioned much discussion. Our friend appears to be a firm believer in it, and enters at large into the reasons of the faith that is in him. The subject, in a pathological view, embraces diseased action of the fluid itself, and of the tissue comprising its containing vessels and their mutual reaction on each other.

Mr. Bramley's paper has interested us much in the perusal, and we trust to see more curious Nipaul reminiscences from the same pleasing pen. It is extraordinary under what apparently desperate circumstances nature, befriended by a little very simple and rough art, will work out a cure for herself. The same sort of punishment was once prevalent throughout Europe—but there some Surgical assistance was always given to the unfortunate sufferer. The Nipaulese authorities do not trouble themselves on that head, but leave the poor wretch to shift as he best may. In Morocco, the operation of cutting off a criminal's hand is not so neatly performed as at Nipaul. An axe is the instrument used, they rarely cut off at one blow, and never hit twice in the same place before

† Hamilton's History of Medicine, &c. Vol. I.

* John Bell's Discourses on the nature and cure of Wounds.

the dismembering is effected. The stump is then plunged into boiling pitch—and thrust into a hollow bamboo, till it gets well. Notwithstanding this summary and rough treatment, most of the poor people get well and go about afterwards as beggars. The punishment is frequently inflicted in Nepaul, it seems, and yet death seldom follows. In a surgical point of view, Mr. Bramley's paper suggests reflections of a consolatory character. Much has appeared of late to render it not improbable, that the treatment of wounded arteries will, ere long, undergo a good deal of modification, and the observations of Mr. Davy, in his paper on Aqua Binelli, referred to in a preceding number, tend to the same conclusion. Of the inefficacy of punishment, where it merely works by terror without any reference to the moral improvement of the individual, Mr. Bramley gives a very striking illustration—for one of the malefactors, after having his right hand lopped off for coining, returned to the same unlawful courses, and had his left hand struck off too—and the rest shortly after their punnishment became again implicated in robbery!

Mr. Spilsbury gives a hint on the subject of Salivation which should not be lost sight of by those it may concern. Verb. Sap.! We shall feel obliged to any of our readers who will reply to the query he puts.

Mr. Raleigh's Summary of Hospital cases for March is a truly valuable and instructive article, and such as we may be allowed to remark, without being justly amenable to the charge of puffing our own wares, would reflect credit on any publication. We beg particularly to call the attention of the Contagionist in Cholera to his observations on that subject, and his remarks on blood-letting in the same disease, are fraught with practical importance.

We have been requested to state that Mr. Corbyn contemplates the publication of a large work on the Diseases of India. Such a work, if rich in facts, and founding theory on that strong foundation only, will be a great acquisition. Would it not be desirable to preface it by an introduction, giving a general sketch of the progress of Medical Science in India, as far as it can be traced; and furnishing a general estimate of the value to Medical Science of such additions to its stores as have appeared from time to time, since the connexion of Europeans with the country?

A former number of the India Journal of Medical Science contained an extract from Griffin's translation of Rose's Analytical Chemistry, on the qualitative analysis of Arsenic; and the present one contains a similar extract from the same work, on the qualitative analysis of Mercury. The intrinsic value of the articles themselves is a great inducement to select them; but there is a greater still in the vast importance of qualitative analysis in state or forensic medicine. Where, it is obvious, a mistake may be of the most fatal consequence, by letting a guilty person loose on society; or, worse beyond comparison, by visiting an innocent man with the pains due to the guilty. The subject comes home to the bosom of every body. No one can tell, that he may not fall a victim to the malice of a poisoner: no one is certain that he is safe from an accusation of practising on the lives of others. But it is a safe-guard of no ordinary value to society, when the person called upon to perform a chemical analysis, is found to possess a knowledge of the subject, that will guide him to an infallible result.

Enquiries, however, of this nature have not in any country more than in France, received the attention from the laws that they merit. In England, the subject was for very many years left to chance, or to ignorance worse than chance; but of late it has, perhaps from the influence of example, been better

considered; while in this country there can be no hesitation in saying it is still sadly neglected. In France no means are left untried to detect the guilty deed; if satisfaction is not afforded by the analysis of one man of science, that of another is had recourse to, or a third, or a fourth, or more still; until the evidence becomes as complete as the nature of the case will admit. In the instance of Urbain X. in the first number of this work, M. Orfila discovered traces of poison, that led to the conviction of a great public criminal, after the substance containing it had been in vain submitted to four other able chemists. Those gentlemen may have been as well versed in the science as M. Orfila himself, it is not unlikely that in its general principles they were fully his equals. The tests they employed, the processes they pursued were, it may be, the very same as those he made use of. In what then consists the secret of his success? The answer is not difficult: M. Orfila has probably had more experience in the analysis of poisonous substances than any man that ever lived; and although his tests and his processes were the same as theirs, his mode of applying them was different. Had M. Orfila been contented to wait but 24 or 48 hours, his analysis like that of the other chemists would have failed; but his great experience told him that in some cases several days must elapse before a precipate can be obtained; he waited accordingly, and his patience was crowned with success.

In India, the attention of the executive power has not been enough turned toward this branch of Medical Jurisprudence, consequently little has been done. And yet, perhaps there are few countries where, from the peculiar character of the natives, and our situation among them, there is more need of measures being taken to place the science of analysis upon an effective footing. In the Mofussil, poisoning may be attempted, and possibly is executed to an alarming extent, without any but the remotest chance of detection; and that it takes place also in Calcutta, the case of Manuel Bury, but last year, is a proof. In that instance, the unfortunate man was at first supposed to be seized with, and was actually treated for, cholera: that poison and not cholera was the cause of his death, was only discovered by accident; and suspicion might have been lulled for ever, had a little more adroitness been used in the perpetration of the crime. Many are the occurrences, no doubt, of sudden death in Calcutta that have been attributed to any but their real cause—*poison:* many, there is too much reason to believe, have been the cases where cholera, "or the visitation of God," has been supposed to be the agent of death, but where the victim has fallen "into the hands of man."

In the Mofussil, without instruments, books, or the means of getting them, without experience, perhaps, or intercourse with, or assistance from others, the solitary medical officer has little chance of unravelling the schemes of an Indian poisoner. While things remain as they are with regard to the means of investigation, so they must remain with regard to its results. But in Calcutta, and the large cities, it is different surely? Here there is a Police Surgeon paid for his services; with the command of public stores; and with the advantage of being able to consult with his brother practioners at will.

So at first sight it would seem; yet how different are the facts of the case. For the small salary attached to the situation of Police Surgeon, he is liable to be called upon to perform duties, that it is difficult to suppose any one man was ever equal to. We believe he has to attend the whole of the establishment of the police, its magistrates; its clerks; its writers, european and native; its thannadars; burkendauzes;

peons ; and prisoners ; together with any body else to whom he may be called : He must examine the bodies of all found dead, or exhumed for an inquest, or who die with suspicion attached to the mode of their death : a duty in itself, in so great a city, of magnitude sufficient to occupy the time of one man ; and more than sufficient, in a tropical climate, for the pay that is allowed for all. He must attend the Inquests of the Coroner ; and trials in the Supreme Court· And above all, the same individual upon whom this multitude of duties is placed, is also expected to perform experiments affecting the life of his fellow man, which require the greatest nicety of manipulation, coolness of judgment, and collectedness of thought.

But this is not all, the salary is such that no one qualified for the post would consent to hold it, if it were expected that his whole services should be devoted to its duties. Private practice is therefore allowed as an equivalent for the niggardliness of the public: and the man, thus over-worked, is compelled to struggle still harder for his daily bread. In short, we can scarcely imagine how any individual, however talented, scientific, or endowed with mental and corporeal strength he may be, can manage to perform the duties laid upon the Town of Calcutta Surgeon of Police.

The remedy for this is the appointment of some properly qualified person to relieve the Police Surgeon, from that portion of his duties, which consists of the chemical examination of substances found in the alimentary canal ; whether in the œsophagus, stomach or bowels ; in all cases of suspected poison.

The qualifications of a person to fill this office are of a very high nature; moral and scientific. He must be endowed with a strictly conscientious sense of the important duties of his office, and moral courage in a Court of Justice to fulfil them. He must be well versed in chemical research in all its branches, but more especially in mineral and vegetable analysis. It was an opinion at one time that traces of vegetable poison could not be found, unless the hurtful substance had been given in so large a quantity, that part of it still remained unaltered in the alimentary canal at the time of death. This opinion is now utterly disproved. The researches of various chemists, and more particularly those of Orfila, Pelletier, and Robiquet, have proved that vegetable poisons can, under many circumstances, be detected with almost, if not quite, as great a degree of certainty, as those of a mineral nature.

The best method of procuring a person properly qualified for the office here recommended would be to send to Europe, and trust the selection of an individual to some Professor of Medical Jurisprudence, or better still perhaps, to the united choice of the Professors of some University. Of all we know that of Edinburgh is the best. The science of Medical Jurisprudence is there studied with a more than ordinary degree of assiduity. And there are few men, better qualified to judge of the capabilities of a candidate, than Doctors Christison and Traill.

At the risk of being thought to dwell too much upon one subject, we again beg the attention of our readers to Baron Heurteloup's cases of Lithotripsy, selected from the *Lancet* for the last number of *The India Journal of Medical Science.* The great importance of this subject, cannot be made manifest in a more striking mode than by contrasting the safe, and comparatively painless operation of Lithotripsy, with the dreadful one of Lithotomy. And this contrast was made by placing the Baron's cases side by side with that of Mr. White. Here the sufferer, a little helpless child, was bound upon a table, and kept for forty minutes in all the agony of a most dreadful

operation; aggravated by the sufferings occasioned by a stone too large to be removed without tearing the rectum; and by its alternate play between that gut and the bladder, as it slipped from the forceps. Mr. White is one of the best operators in London; and no blame could be attached to him. So much the worse. If a patient under so skilful a Surgeon suffers all this torture, what must one do in the hands of an inexperienced man, or of an ignorant quack. The whole account, however, is of too harrowing a nature to dwell upon. But at any risk of being dull, we feel it to be our duty to draw attention, again and again, to the necessity of introducing into this country, an operation, in which the pain is trifling, and the danger little; as a substitute for the one we have so much reason to dread; and which we fervently hope will soon be superceded for ever.

On referring to the Report of a Quarterly Meeting of Subscribers of the Medical Retiring Fund, it will be seen that as much interest is excited for its welfare as ever. Of course, pending the decision of the Court of Directors, little can be expected to be done; but still it will be pleasing to the subscribers to observe, that such a large number of the service of all ranks have subscribed; thus evincing their perfect conviction of the practicability, and, indeed, it may be said almost certain success of the scheme.

QUARTERLY REPORT OF THE BENGAL MEDICAL RETIRING FUND.

Calcutta; April 18, 1834.

The Committee of Management, pending their reference to the Honorable the Court of Directors, have nothing of importance to offer for consideration on the occasion of the present Meeting. They beg to bring, however, to its notice, that the result of the votes of the Subscribers to the Fund, taken upon the question of the admission of Veterinary Surgeons into the Institution, and that of the votes for the nomination of four gentlemen to fill up vacancies in the Management for the present year, are not yet ascertained; the Benares, Dinapore, Barrackpore, and Meerut Divisions not having yet forwarded replies on both questions to the circulars on those subjects.

In the last Quarterly Report a Statement was shewn of the donations and subscriptions of Members paid into the Civil and Military Pay Departments up to July last. A Statement has since been received of further recoveries effected in the Military Department up to October, 1833, amounting to Sicca Rupees 7356-10-5; but no further accounts have been received from the Civil Department. The expenditure on account of office establishment, advertisements, &c. from January to March inclusive, is Sicca Rupees 128-8-0.

The letters received during the last quarter now laid upon the table, are connected with the current business of the Society. Two gentlemen, Messrs. J. F. Stewart and A. Keir, Assistant Surgeons, have been enrolled as Subscribers to the Fund, and one Mr. Assistant Surgeon J. Hope has withdrawn from the Society. The present number of the Subscribers to the Fund is, 1 Member of the Medical Board, 6 Superintending Surgeons, 50 Surgeons, and 126 Assistant Surgeons—total 183.

H. S. Mercer, *Secretary.*

ERRATA IN No. IV.

In Mr. Atkinson's paper, p. 113, left hand column, line 22 from the bottom, for "any evacuation of the *acid*," read "any evacuation of the kind"—10th line from bottom, for "*exertions*," read "excretions."

Page 126, right hand column, for "*B.* Mackinnon," read "K. Mackinnon."

In Editorial remarks, p. 142, right hand column, line 1 from the bottom, for "solar or lunar influence *on* both, read "or both." Ditto, p. 143, left hand column, line 7 from bottom, "professional," should be in Italics. Ditto, right hand column, line 17 from top, for "the wonders *he* has witnessed," read "the wonders said traveller has witnessed." Ditto, p. 144, left hand column, line 14 from top, for "credit *of*," read "credit for." Ditto, right hand column, line 21 from bottom, for "*pathalogical*," read "pathological." Ditto, p. 145, left hand column, line 5 from top, for "*is* decidedly cruel," read "it is decidedly cruel." Ditto, p. 151, left hand column, line 12 from bottom, for "From Galen to Boerhaave the conviction *of* life, &c.," read "the conviction concerning life, &c." Ditto, ditto, line 7 from bottom, for "*but* states Addison," read "for states, &c."

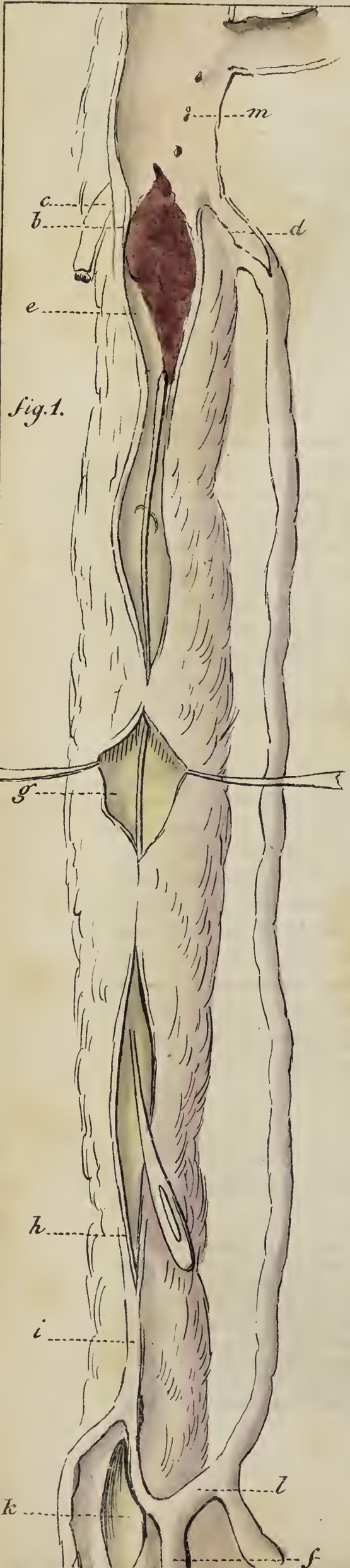
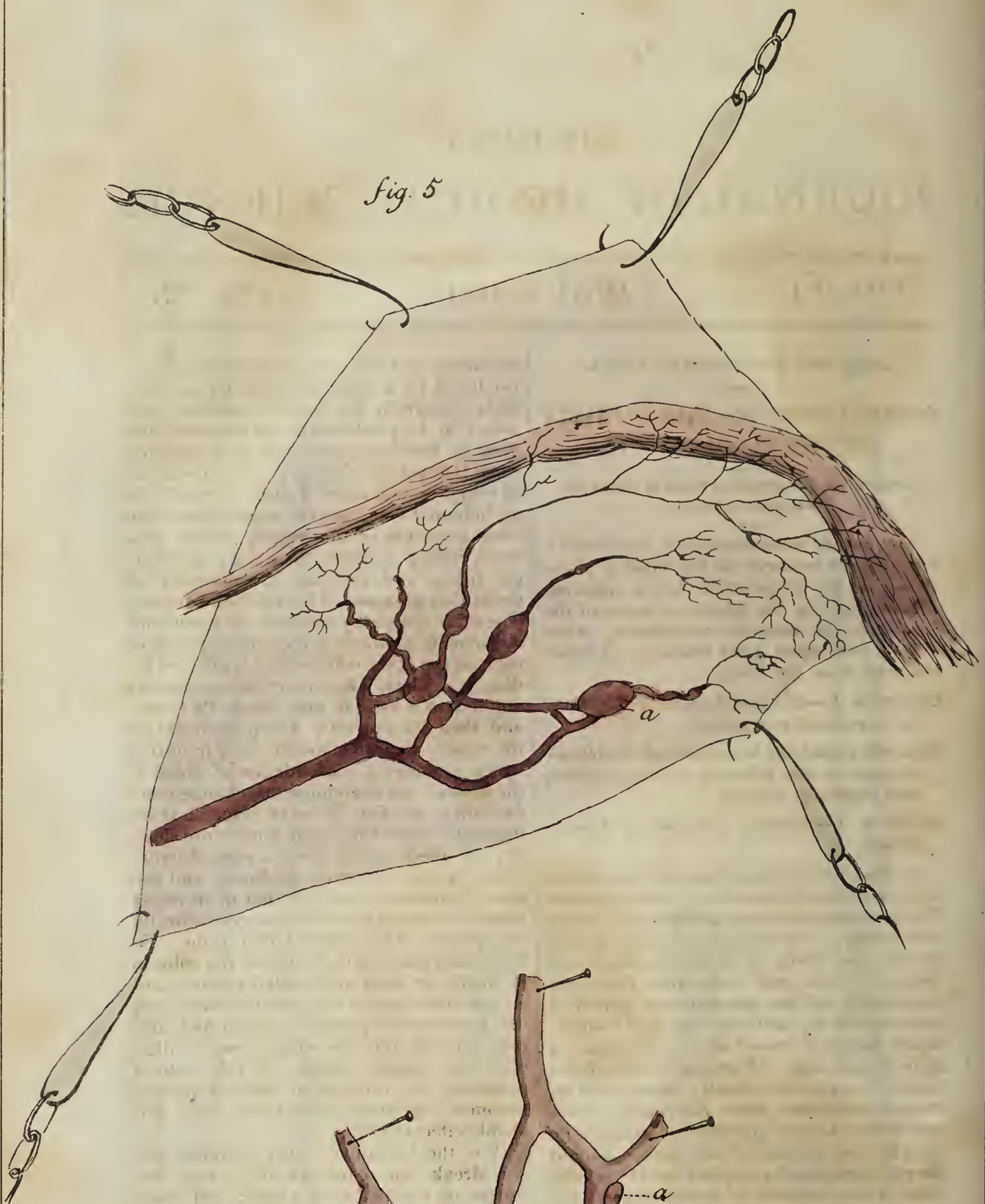


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 5



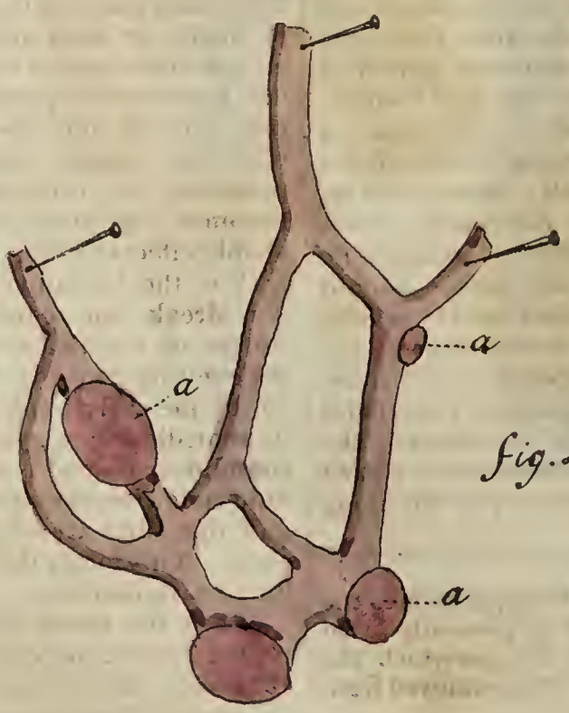
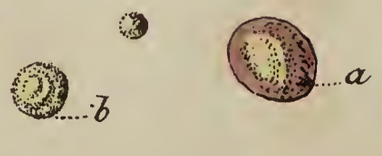


Fig. 4

Fig. 6



THE INDIA

JOURNAL OF MEDICAL SCIENCE.

VOL. I.] JUNE 1, 1834. [No. VI.

Original Communications.

OBSERVATIONS ON THE VITALITY OF THE BLOOD.—No. II.

Longum iter per precepta; breve et efficax per exempla.—SENECA.

My former communication contained a few general remarks on the Vitality of the Blood, as an introduction to the following observations on the Sthenic changes of the Blood in its natural receptacles, when thrown out upon vital tissues, and when removed from the body.

CHAPTER I.—*Sthenic changes of the Blood in its natural receptacles.*

Under this head will be considered the Sthenic changes in the Blood of Veins, Arteries, and capillary Vessels.

SECTION I.—*Sthenic changes in Venous Blood.*

As blood circulates, it may be diminished or increased in its vitality by various causes. We have seen that when diminished to a certain degree, it is no longer capable of supporting the body in its usual state, which becomes weak and emaciated from the diminution of the nourishment which it derives from it; and this vital fluid is sometimes found depraved so as to approach a state of putridity. When the vitality of the blood is augmented locally, there is an increased secretion from the part, which contains a larger quantity of coagulable lymph, the pabulum of new parts. Should the exciting cause be applied to a large vein, after it has reached a certain degree, the homogeneous blood changes to a solid state, or consolidates.* When a large superficial vein is so irritated as to be inflamed, the first symptom indicating this state is a hard cord-like substance which may be felt along its course, and is proved, on dissection, to be produced by a consolidation of its contents. This change in the blood is constant, and seems to be produced by an increased degree of that alteration which is observed when the system is strong; and is the effect of a higher and morbid state of vitality in an inflamed vein. In the same manner the vital principle of the vessel, and its contents, acting on each other, vary at different times, and produce the diversity of fluids that are secreted in health and disease. The same sympathy between the vessel and its contents produces a reciprocal action of each on the other when either is affected by disease. Thus, when an irritating cause is applied to a vein, it first affects its tissue, and then its contents, which again act on the vessel. It is then the effects of irritation which produce a consolidation of blood in the vessel. On examining this change more carefully, we find it takes place in those places in which the blood flows more slowly; an effect which the increase of irritation to a certain degree produces, and this slow circulation resembles that in secreting vessels, in which the vital changes naturally take place. The consolidation in the vein first takes place in the centre of the column of blood, or near an irritated surface, and as the influence of the irritation increases, new layers are deposited upon the first, and this goes on until the whole vessel is filled with the changed blood. In this state it possesses the property of inherent motion, becomes organized, and thus shews the visible effects of life.

It is the irritation which produces the red streak and cord-like feel along the course of the inflamed vessel; and when the exciting cause is diminished or removed, by the early application of antiphlogistic remedies, these symptoms disappear, the consolidated blood is again resolved into its fluid condition, the vessel becomes pervious, and the parts are restored to their natural state. This forms the termination of phlebitis by *resolution*.

When the inflammation is more severe, or the system more susceptible, the vessel continues impervious, by the consolidated blood filling the vein; and from the

* I employ this word in opposition to the term coagulation, which is generally used to designate the chemical changes which the blood and fibrine undergo when removed from the body.

want of absorption of the serum in the cellular tissue around the vessel, an œdematous swelling is produced by its accumulation, along the course of the diseased vessel. When the inflammation is more acute, a larger proportion of coagulable lymph is secreted, and a hard swelling is the consequence, which often extends not only along the course of the vessel, but also into the neighbouring parts, producing fever and much distress to the sufferer. In such cases, abscesses frequently form in the cellular tissue, and are discharged with much relief to the patient. This acute inflammation in the neighbourhood retards the progress of phlebitis; which, however, frequently runs a fatal course by the extension of the inflammation along the vein.

The changes which take place in the vein when not retarded by antiphlogistic remedies, and the solution of the consolidated blood, are often not observable from the severe external inflammation, which, although distressing, is but of secondary moment when compared with the very dangerous effects of the inflammation in the vein.

The extent of the consolidated blood varies, according to the powers of the system, the degree and length of the application of the exciting causes, the size of the vessel, and its distance from the large trunks of the heart, and the size and number of the collateral branches. When the inflamed branch is small, the consolidation seldom extends far, especially in the course of the circulating blood, where the vessels have many valves, and enter a trunk at an acute angle. This changed blood remains, for a time, unconnected with the tissue of the vessel, which appears quite healthy; but when the inflammation is more severe, the coats of the vessel participate. This secretes lymph in its proper tissue and upon its internal membrane, which becomes thickened, and an intimate connection takes place between it and the consolidated blood. This forms the *adhesive* stage of inflammation in veins.

Consolidated blood we have seen is formed by concentric layers; and when the inflammation continues it undergoes other changes. The red globules become fewer at the centre, and at length disappear, leaving a hard white substance. As this change advances externally, the central portion softens, and is converted into a puriform matter. The external crust remains longer unchanged, and being united to the internal surface of the vein, forms an irregular surface, which may be mistaken for a false membrane. In general, the whole of the consolidated blood is found, on dissection, converted into pus, leaving a shining irregular surface for a short distance below, and a considerable distance above the seat of the part to which the irritation had been applied; and in this space the vessel is filled with pus. Should the person live long enough, the pus accumulates and tends outwards, forming separate abscesses; as occurred at g. fig. 1st. The drawings shew these different changes; as in the three examples, the abscess is bounded by consolidated portions of blood adhering internally to the thickened tissue of the vessel; and has been explained above, as forming the adhesive stage of phlebitis. In this manner the progress of the disease towards vital organs is retarded, and the introduction of pus into the system prevented.

In some cases, from the severity of the cause or weakness of the system, there is not a sufficient quantity of consolidated blood produced, to retard the progress of the disease in the vein. In such cases fever ensues, which soon takes on a typhoid type, and rapidly terminates in death.

Having enumerated the changes which take place in the blood when veins are actually inflamed, we shall next consider the effects of a more chronic cause. When a vein is wounded, a portion of its contents is evacuated into the neighbouring cellular tissue, and unless the vessel and wound be large, the bleeding soon ceases. A portion of consolidated blood forms between the lips of the wound, the inner surface of which is soon covered with a thin, smooth, transparent membrane of new formation, similar to, and continuous with, the internal membrane of the vein. This consolidated blood changes into a whitish semi-transparent substance, or cicatrix, which continues weak, and differs from the proper tissue of the vein. When the vein has been divided across, it contracts and retracts within the cellular tissue, a consolidation of blood takes place within and around the cut extremity, which generally speaking quickly stops the hemorrhage, from the free anastamosing of veins, through which the circulation is carried on and the little propelling force of the blood in this system of vessels. The vein is thus rendered impervious to the next collateral branch which pours its blood into it. The consolidated blood in the vessel near the divided surface, slowly diminishes, becomes pale, and is gradually obliterated, and disappears in the dense cellular tissue surrounding it.

In other cases, when a consolidation of blood takes place in veins, the circulation is carried on through the collateral branches, and the vessel becomes permanently

impervious to blood. In such cases, the consolidated blood slowly changes to a hard pale substance, and as it diminishes in size, the vessel shrinks, and is reduced to a cord. In this manner the largest trunks of veins may be obliterated, without any bad consequences being produced. The vena cava was found obliterated, from the insertion of the emulgent veins to the right auricle of the heart in cases, described by Baillie,* Albinus,† and Morgagni.‡ In one case, Albinus found the inferior vena cava and iliac veins filled up by concretions; and Haller found the inferior vena cava and iliac veins obliterated in the same manner; in another case, the left internal jugular vein was contracted and filled up by "coagulated lymph."§

In some cases, from the local irritation in the trunks of the veins and heart, portions of consolidated blood are formed; the inherent vitality of which increases, and become organized. New vessels are developed which connect themselves with those of the tissue of the vein. Such organized portions of blood are called polypi. From the continued motion of the blood in the vessel, their formation is rare, and only occurs where the circulation is languid. I have frequently seen large veins filled with consolidated blood, which, on a careful examination, seemed to be organized, from the number of pale lines running through them, and, from the manner they ramified, appeared to be vessels. "I think," says the accurate John Hunter, "I have been able to inject what I suspected to be the beginning of a vascular formation in a "coagulum," when it could not derive any vessels from the surrounding parts."‖ In other cases I have found old tumours of a red colour, and very vascular, firmly attached to the internal membrane of veins which appeared to give them a covering. These tumours seemed to have formed a considerable time before, and had been produced by changes taking place in the condensed blood. Other cases are on record of such polypi being found in veins. I saw a beautiful specimen the size of a filbert, adhering firmly by a neck to the vena porta, as it entered the liver, in the museum of the Civil Hospital at Vienna.

Mr. Wardrop, in his excellent edition of Dr. Baillie's works, refers to a case of Polypus, described by Mr. J. Stewart, as being highly vascular.* In this case one of the polypi was found in the right auricle, and one in each ventricle. Mr. Wardrop saw the preparation of a polypus of the left ventricle, in the centre of which was a distinct abscess.† Such alterations are explained, as in the examples above related, by the vital changes, which take place in the consolidated blood.

When a slight and temporary cause produces the consolidated blood, and there are numerous collateral branches at the part, the circulation is very languid, and often remains for a considerable time without any further change, excepting the formation of a thin, smooth, transparent membrane on its surface, exactly like that of the internal membrane of veins, and thus shewing a resemblance to a serous membrane. In other cases, the red globules are removed near the centre of the consolidated blood and the pale substance left is hard, and tough, like cartilage. In this state it may remain a considerable time, as occurred in a woman who died some time after childbirth. On dissection, the veins of the uterus were found large and tortuous, and the consolidated blood had, in several places, assumed a cartilaginous appearance. In another case, the patient seemed to have lived longer after phlebitis subsequent to delivery, as the consolidation of blood had partly filled up its calibre, in the interior of which calculi were found. These are produced by gradual changes in the consolidated blood, to a cartilaginous, and afterwards into an osseous substance—which have been called *Phlebolites*. Such changes may be frequently seen in its different stages to the osseous state in veins.

These phlebolites are found surrounded by, but unattached to the vein, and the smaller ones often admit of the circulation of blood, and are imbedded in consolidated blood (see Figs. 4, 5, & 6.)

In some cases the consolidated blood which surrounded these calculi is removed, and the vessel being left impervious, shrinks and in time disappears leaving the calculi in what is erroneously supposed to be cellular tissue. These phlebolites have an ovoid form, and are found of all sizes, from the head of a pin to that of a pea or bean, and have usually a smooth surface. These calculi are of a light yellowish colour, generally mixed with a slight tinge of red externally (see Fig. 6th). They are formed of concentric layers, their specific gravity is nearly that of bone, and their hardness increases when taken out of the body and

* Trans. of A. Soc. vol. 1, p. 129.
† Annot. Academ. lib. 7, c. 9.
‡ Epist. 36, Art. 10.
§ Op. Path. p. 6, S. 8.
‖ Cc : cit : vol. 1, p. 163.

* Edin. Med. and Surg. Journal for 1817.
† Baillie's Works, vol. 2, p. 20.

dried. By chemical analysis they are found to consist principally of the phosphate and carbonate of lime united with animal matter; and there is likewise a trace of the presence of phosphoric acid, &c.

These calculi are most frequently found in the pelvic veins, especially in those ramified on the rectum, the neck of the bladder, and uterus; from these veins being more subject to inflammation, the slow course of their contents, their being subject to great changes in their size, and their frequent communications, which allow the circulation to be carried on by the collateral branches. As these veins are less liable to the acute causes of phlebitis, when the constitution is weak, and the inflammation chronic, the blood is thus allowed slowly to be converted into cartilage and bone. Phlebolites, however, are not peculiar to the pelvic veins, as they are frequently found of the largest size, and of a more irregular figure in the veins of the spleen. They are not unfrequently found in the branches of the external pudic; Cruveillier has seen them in the veins which accompany the anterior and posterior tibial arteries; and in a patient who died from phlebitis, I found a calculus the size of a pin's head, surrounded by a portion of consolidated blood, and lined with smooth membrane, in one of the communicating branches of veins at the bend of the arm.

Phlebolites are, in general, found from a few to 20 or 30 in number; in one case, I counted 40 in the veins which surround the prostate gland, and neck of the bladder.

Explanation of the Drawings.

Fig. 1st.—This drawing illustrates the course of phlebitis, and the salutary efforts of nature to stop the progress of the disease. In this case the wound was made in the vein opposite *k*; inflammation took place in the vessel, and extended to the neighbouring parts forming the abscess *k*. As the inflammation extended upwards, it diminished in the original seat of the disease, leaving a serous sac where the pus had been secreted, and a diminution in the size of the vessel at *i*. As the disease advanced, the consolidated blood between *h* and *e* had been broken down and converted into pus: this change is seen in progress at *e*. The abscess was thus bounded as in other tissues; differing only by the adhesive inflammation connecting the parts being the consolidated blood at *b*, and not lymph as in the generality of abscesses. In this case it pointed at *g*, from which some pus was discharged during life. The circulation was carried on by the number of branches which poured in the blood beyond the diseased portion at *d*, *c*, *m*; which was assisted by the enlargement of the median vein *f*, the median cephalic *l*, and the cephalic which poured in its blood at *d*.

Fig. 2nd.—Phlebitis produced by the absorption of purulent matter; and nature separating the diseased from the healthy portions of vessels by the consolidation of blood, at *e*, *f*, *g*, *h*. By the thickening at *b*, and contraction and puckering at *c*, the large collateral branch was much diminished in size by the incipient inflammation.

Fig. 3rd.—Represents the progress of inflammation in a vein; the adhesive inflammation consolidating the blood at *b*, *c*, *d*, so as to separate the diseased from the healthy part. The wound had been made at *a*, and a consolidation of blood and thickening of the tissue of the vein had taken place at *e*, which in the progress of the disease had been broken down, and the cavity of the vein between *b*, *c*, *d*, was filled with pus.

Fig. 4th and 5th.—Represent the consolidated blood changed near their centres into osseous calculi.

Fig. 6th.—Represents several phlebolites of different sizes; and one of them, *(b)* divided, shewing its striated structure.

T. A. Wise, M. D.

POPULAR NOTIONS ON HEALTH AND DISEASE EXAMINED.—No. II.

In my preceding communication, in which, as in the present, foreign lucubrations are adduced, only a few points of popular prejudice were touched upon—but abundance remain to be considered. With reference to the former article, there can be no doubt, that books of family medicine, and medical treatises, intended for the general reader, are capital things for the practising Doctor. "Physician cure thyself," may be a very good adage, and it is often thrown upon the profession with suitable scorn; but when the individual who has tampered with his own constitution, with the notion of being able to repel the invasion of disease, becomes seriously indisposed, he does not exclaim "Physician cure thyself," but "Physician hasten, cure *me!*" The general reader, who thinks it necessary to dip into the arcana of the Medical store-house, consults books perhaps less for the purpose of studying the art of cure than to know the symptoms of some disease which he dreads, or with which he thinks himself likely to be assailed. In this pursuit he is well encouraged by the shoals of quack publications daily issuing from the press, in which it is pretended that the science of medicine is placed within the reach of every capacity. It is thus

the empiric, according to his own boast, places his drugs within the reach of every purse. He brings the question home to the bosoms of every one, familiarising studies the most recondite and abstruse.

But the art of eure is not to be understood solely from books of instruetion. A treatise on medicine, says one of my authorities, is not like a course of arithmetie, where all is perfeetly elear, and submitted to a rigorous demonstration. Medieine, notwithstanding the important diseoveries which are daily enriching its reeords, is still but a conjectural art in most of its parts, and in whieh exceptions are continually invading its rules. The man who has never studied but in theory, not in hospitals, nor at the bedside of the siek, places his confidence in symptoms. At the sight of each symptom he believes that it is produeed by the same eomplaint; he aets in consequenee, and treats by the same means diseases diametrieally opposite.

In short, corresponding and similar symptoms very often eharaeterize diseases entirely different, whieh eannot be distinguished from eaeh other excepting by physicians as skilful in practise as they are learned in theory. Thus eough occurs in pulmonary catarrh, peripneumony, pleurisy, phthisis pulmonalis, asthma, hooping cough, eroup; it aeeompanies aneurisms of the heart, and large vessels, perieardítis, hydropericardia, hydrothorax, and eertain irritations of the stomach. The man who, among the symptoms peculiar to each of these maladies, remarks only the eough which is eommon to all, believes that he has to treat the same disease, and proeeeds under this erroneous impression. Who ean caleulate how many victims fall a saerifiee to the ignorance and presumption of sueh a practitioner.

It has been seriously reeommended, that all books whieh treat of the eure of diseases should be, as formerly, written in Latin, that they might be inaeeessible to a number of people who now seek after medical instruetion whieh they never fully obtain, and who aequire a false knowledge twenty times more dangerous to them and to others than total ignorance. A case in point is here shewn.

Doctor Piorry, in an artiele published in the *Dictionnaire des Sciences Medicales*, speaks of a gentleman who was afflicted with an incurable and mortal complaint, and found in a medieal book the melaneholy truth which had been humanely hid from him by his physician and friends.

"The siek man," says Piorry, "opened the book, which explained to him the dangers with whieh he was threatened; there, nothing was concealed; the alarming truth appeared to him in broad day, and not a hope to console him. The article which predicted to him a terrible death was consulted a hundred times. He read and read again, and every moment his anxiety was augmented by new sorrows. He beeame melancholy and morose, without avowing the eause. His character grew sombre, and his peevishuess insupportable to all around him. His wife and ehildren were perhaps still more to be pitied than himself, so difficult was it to satisfy his eapriees, and remove his fears. Stretehed on his bed of pain, no efforts eould draw him from his gloomy meditations; his restless spirit aggravated even the perils to which he was exposed; he saw the end which he most dreaded, as if it was really approaching, and the fate whieh threatened him was uneeasingly present to his troubled imagination. He might be seen sitting sullen and dejeeted; his physiognomy, the image of despair, deelared the lacerated state of his soul; every day added to his fears and his sufferings, beeause every day, or rather every minute the fatal book was consulted. The misery which devoured him hastened the moment which was to terminate an existence so painful. The disease made rapid progress. He ought to have had more confidenee in the skill of his physieian, for it was in vain to endeavour to hide from *him* the state of his mind. The most eonsoling advice was despised. The regimen whieh was prescribed in the hope of prolonging his life, and the medieines which were given to soothe his agony, were alike neglected, beeause the patient had read in a book that he eould not be cured. It was then that, despairing of the succours of art, the dying man gave himself up to some shameless mountebanks, who exhausted the sources of life, and aceelerated a death that might perhaps have been avoided, or rendered mueh less cruel. Imprudent man! what advantage hast thou gained from this pernicious eourse of reading? To what has thy dangerous euriosity reduced thee? Well had it been for thee if the fatal work had never existed. But it is now too late; the blow is struck."

Imaginary Complaints.—It is most assuredly an error, it is a grievous fault, to abandon one's self, in matters of personal health, to all the ramblings of a weak imagination, and fancy, on the least indisposition, that we are labouring under some alarming disease. Moliere has visited with ineffable ridicule those who imagine themselves siek,—notwithstanding whieh, their number among women in advanced life, and among men retired from business, is immense. A lady, about 48 years of age, in excellent health, had experienced, or felt

at the same time, all the complaints she had ever heard named, or that had ever been described to her! If any one complained of a megrim or a hoarseness, she exclaimed directly—"As for me, I say nothing, but I suffer cruelly from the head, and I can hardly speak." If the death of any one was announced, she would observe that she had herself been ten times at the point of death.

The mania of complaining for the purpose of drawing attention and becoming the object of sympathy and solicitude, is no doubt a curious resource of self-love. However, nothing is more common among persons who live in idleness, or without occupation. But times are changed, and it is now the fashion for pretty ladies of the capital to enjoy good health, and never to complain when they really suffer. A young lady languishingly extended on a sofa, and speaking with a soft and dying voice, inspires not the least interest in this age, all such affectation, with which indeed our ancestors were abundantly supplied, being now utterly extinct. Far from running to form a circle round the pretty patient, they recommend her to a physician, and confine themselves to making inquiries at her door.

Longings in Pregnancy.—A host of persons contend that if a woman with child, endowed with warm affections, happens to place her hand on any part of her body, whilst feeling a violent desire to possess a thing which she cannot obtain, the representation of the object which excited her desire will be impressed on her infant on the same part which she had touched herself. In vain have enlightened men endeavoured to remove this strange belief, which has no foundation in truth. To all reason and argument on the subject, the abettors of this notion coolly oppose examples which they declare they have seen, accumulating pretended proofs of a fact which has in reality no existence.

The marks which children have when they are born, the *nœvi materni*, are of every form and color. They are circular, oval, small, large, and sometimes irregular and diffused. Their colour is sometimes livid, red, blue, violet; at other times brown, yellow, or mixed of various tints. We never saw green ones. The red marks are said to be occasioned by the alarm which the mother experienced on seeing a bleeding wound. The brown are attributed to coffee, or a desire, unsatisfied, to drink that beverage. The livid tint is caused by a desire for wine, and the yellow by a desire to drink beer or cyder, according to the country the party may inhabit.

Imagination finds in the form of these marks a resemblance to a hundred objects which the mother had desired to possess. We see cherries, mulberries, strawberries, gooseberries, pomegranates, figs, pears, apples, red beet; sometimes entire animals, such as frogs, oysters, fishes, vipers, spiders, caterpillars, hares; at other times only parts of animals, as the crest of a cock, a head or tail of a rat. The animals which are thus seen upon bodies do not move, but the plants are seen to vary in appearance according to the season. A woman who had a pretended strawberry upon her breast, affirmed that this fruit was pale and white in the spring, red and ripe in summer, and faded and became black at the commencement of winter.

The influence of imagination in mothers, respecting their children, is so seducing to persons who have not strictly observed the operations of nature, that even sensible people, not exempt from human weakness, have acknowledged and proclaimed it as an established truth. Mallebranche recommended very seriously to the pregnant women of his time to scratch any part of their bodies not exposed to view, when they were tormented with some ardent longing which they could not satisfy. In short, to call the animal's spirits to a part usually concealed, and to make it necessarily receive the resemblance, be it of a mulberry or a frog, which otherwise might be found on a part uncovered.

These marks, however, have but an imaginary resemblance to the objects with which they are compared.* The celebrated Haller was called one day to see a lady, who, it was said, had the figure of a bird on her face; but this great physiologist saw nothing, except a livid and deformed excrescence. A girl said she had on her chest a rose, which blossomed every spring, but it was nothing more than a red mark, resulting from an alteration in the vascular tissue of the skin.

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* I remember at a fête of Charles X. all the show-folks in the kingdom seemed to be assembled in the *Champs Elysees*, and one of them exhibited a child two years old, professing to have three faces, one in the usual position, and two at the extremity of the arms! The decoy-picture in front of the place of exhibition certainly displayed three well proportioned visages, so that, curious to know by what sort of hocus-pocus this effect could be produced, I entered the booth. The child was plump and fat, and both arms seemed to have been amputated just above the elbow, though it was said to have been born without arms. The pursing up of the stump had left marks on each, which a lively imagination might easily convert into features. Accordingly, it was the wonderful child with three faces!

Imagination, however, prevents any thing being seen contrary to the likeness assumed. If the resemblances had any thing of reality in them, and if they were actually produced by the imagination of the pregnant woman, there is not one of us who would not bear upon some part of his body an animal, a vegetable, or some other object. There is not a woman, who during the nine months of her pregnancy, has not had some absurd fancy which she could not satisfy, or has not experienced some strange propensity. Yet those whose period of gestation has been remarkable for tastes the most singular, and appetites the most extravagant, have given birth to infants without a single mole or unnatural excrescence. But when a new-born child has a mark, which is imagined to have a resemblance to some thing or other, the mother, for the honor of prejudice, never having experienced any analogous desires, nor felt any corresponding emotions, all at once brings to mind some particular circumstance, which, during her pregnancy, had affected her in an extraordinary degree, or some longing which had not been gratified. The husband pities her, but contends affectionately that his wife had wanted for nothing during the whole period of her gestation. By this little management, adds the French Academician, the husband is easily imposed upon, and whenever occasion offers, pregnancy is the pretence for obtaining the thing required.

Some philosophers have, however, admitted that the imagination of a mother exercises over her infant a very powerful influence, but solely moral, and may communicate to a weak being some passions, but no deformities, and that emotions the most lively, or annoyances the most vexatious, cannot alter the organization of a material being, distinct from the mother who experiences them. They add that imagination, which is merely a faculty, cannot act upon a body composed of parts. In consequence they have attributed these pretended phenomena, of which they acknowledge the existence, to some aberration of nature. But the influence of imagination in a woman is physical as well as moral. If she communicates to her offspring the passions which agitated her during pregnancy, she may also, when she feels violent and continued distress of mind, alter its constitution, by the derangements which her own health undergoes. Here imagination has but an indirect effect, and acts only by the aid of a secondary agent, the body of the mother. But powerful as may be the imagination of a woman, she never can by the force of that imagination, place upon the body of her child, distinct and separate from her, the marks of flowers, fruits, and animals, if marks on the skin can be properly considered as possessing those forms.

But it has already been said that the signs or marks, which children bear from their birth, are neither flowers, nor fruits, nor animals. They have not, with reference to the objects to which they are compared, that resemblance which imagination would give them. Thus the pretended aberrations of nature, adverted to above, are in fact only aberrations of the mind of those who dream.

Nay more. It sometimes happens that adults, after being perfectly cured of cutaneous diseases, retain all the rest of their lives some marks which occurred during the progress of the malady, or consequent to its treatment. After a disease of the skin, well treated, and entirely cured, an instance has occurred of a long black mark remaining on the shoulder, without pain, and which in a few months was converted into a tuft of white hair, exactly resembling a mouse. To what was this appearance and this change to be attributed? To the imagination of the mother of the patient who had been dead thirty years?

The marks we bear from our birth, and which old Quincy has solemnly pronounced to be "made upon the fœtus by the imagination of the mother, in longing for any thing," arise simply from an organic malformation of the skin, occasioned by accident, perhaps, in its evolution, and certainly wholly independent of the imagination of the mother. The popular belief, however, is probably of too long standing to be eradicated, and my French authority says that half the human race feel an interest in perpetuating it. Some husbands, he adds, take the side of reason, but the women, whose fantasies during pregnancy it would be perilous to dispute, cry out in its favor, and we all know in France the weight of their opinion and the accuracy of their judgment!

Tobacco.—The common prejudice in favor of Tobacco is almost coeval with its first introduction into Europe. When the Spaniards conquered Mexico, they found it in use among the inhabitants, but solely as a stupifying medicine, of which the idolatrous priests took advantage in certain circumstances, when, for example, they wished to appear divinely inspired. For this purpose they inhaled the fumes which threw them into a high degree of mental excitement, and thus favored the establishment and currency of their impostures. Nicot, a French Ambassador in Portugal, was the first who, about the year 1560, made tobacco into snuff, and presented it to

Catherine de Medicis, from whom it got the name of *Poudre de la Reine*, by which it was long known. In Persia the people became so passionately devoted to this pulverised substance, that the Sophi felt himself bound to prohibit its use under pain of death, or, at least, the amputation of the noses of the incorrigibles. James the I. wrote a fierce book against tobacco,* and the thunders of the Vatican were hurled against its pernicious use. These fulminations and prohibitions, however, do not seem to have had any other effect than stimulating the people to a more copious employment of the drug. My French friend recommends the fumes strongly in asphyxia from submersion, but few would wish to qualify themselves in this way for the full benefit it would then produce. Tobacco is distinguished by a pungent, bitter, and acrid taste, no great recommendation to popular favor. But those who want an excuse for smoking allege that it acts pleasantly on the bowels, relieves dyspepsia, and is an agreeable substitute for pills and draughts. Dram-drinking might be as easily defended. Drams are, perhaps, not more pernicious. Those who, as the Poet sings,

Exhale mundungus, ill-perfuming scent,

diffuse generally a filthier odour aroud them than the bibbers of cordials. Many, indeed, have had recourse to snuff to disguise some other effluvia, as garlic is understood to take off the smell of onions. In these matters, however, *de gustibus non est disputandum*, and there may be no great danger in a man smoking "to the top of his bent," only let it be known that it is a gratuitous indulgence, a thing of choice, and unwarranted by any existing necessity. Nasty things may be fashionable as well as sweet ones, and a filthy enjoyment may be mistaken for one of elegance and propriety. The author before me, who inveighs thus vituperatively against this "coutume mauvaise," declares that he has the good of his fellow-creatures at heart, and believes tobacco to be a most pernicious drug. He therefore dissuades them from using it, either at convivial parties or quietly at home, whether in the form of smoke, quid, or snuff, since it has no medicinal power upon the organs of the amateur whatever. Imagination assuredly goes a great way in every thing, and even tobacco has its supporters. But the smoker, whether of pipe, hookah, or segar, may be induced to consider that nervous irritability and febrile inconvenience very often close the fumigating career, and he may at last think proper to pause before he injures the important functions of his system irrecoverably. "Blind mortals!" says my emphatic friend, "know ye not that the drug which stupifies the senses, affects the muscular fibre, and produces a sedative effect? Nervousness, stupidity, inanition, paralysis, and, finally, death."

JAMES ATKINSON.

Barrackpore, April 25, 1834.

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* This work was published in 1603, and called "Counterblaste to Tobacco," in which the King says, "It is a custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fume thereof, nearest resembling the horrible stygian smoke of the pit, that is bottomless."

Camden says, Sir Francis Drake introduced tobacco into England in 1585; and it immediately "began to grow into very general use. A great many persons, some from luxury, and others for their health, being wont to draw in the strong-smelling smoke with insatiable greediness through an earthen tube, and then to puff it forth again through their nostrils. So that tobacco taverns (tabernæ tabaceanæ,) are now as generally kept in all our towns, as wine-houses or beer-houses."

It appears from a note in the 'Criminal Trials,' vol. 1, p. 361, that in 1600, the French Ambassador, in his dispatches, represented the Peers, on the trial of the Earl of Essex and Southampton, as smoking tobacco copiously, while they deliberated on their verdict!

SKETCHES OF THE EDINBURGH MEDICAL PROFESSORS.—No. I.

DR. JOHN THOMSON.

It will while away an hour of heat and ennui in this enervating climate, to recall some recollections of my life at the University of Edinburgh. In the course of my observations it will not, I hope, appear that I am wedded with prejudice to Alma Mater; but I deny not holding the opinion that there are few greater Medical Schools for the Theory of Medicine,—whether the system of teaching is good is another consideration. Oh that the days of my wanderings through the groves of that Academy had yet to run.

What a gift is genius—of heaven. It works its happy possessor on through all the obstacles that conventional manners and corporate privileges can place in opposition to it. If this were not the case, would delighted readers and wondering listeners have drawn instruction from the mind of Doctor John Thomson—a man originally brought up in the town of Ayr as a common carpenter. I place him first on the list of these Sketches, for there is he entitled to

stand from the originality of his genius, from the importance of the branches of the healing art he taught, and from the most honorable service he has rendered to his country and to his fellow men.

It is now eight long years since I have listened with charmed ears and rapt faculties to this Lecturer; but memory recalls every tone, and look, and gesture. Many of my readers will recollect the localities of Surgeon's-square—the gay doors of the Medical Society, that huge sombre pile, the den of the Barber Surgeon Corporation. In the interspace, a pathway leads up to a large uncouth glaring white building. Tread your way up a long stairs—come to a green spring door—and, if you are later than the appointed hour,* by one minute, open gently, and walk quietly to your place in a most crowded theatre, and think yourself lucky that you have made good your entrance, for a little later, and you would have lost not alone an instructive lesson, but a delightful and pleasing oration. As soon as the hour has come, Dr. Thomson walks into an enclosed space on one side, but almost in the middle of the theatre. He takes his seat on a round camp stool by a small table covered with green cloth, and while to use the language of the Roman Poet, "conticuere omnes intentique ora tenebant." Let us try, in words, to paint a likeness of this eminent Lecturer.

Dr. Thomson is of middle stature, though the habit of stooping would lead one to suppose that his person was almost diminutive. His dress hangs loosely about him, so that the contour of his figure is not easily judged of. Pass we on to the god-like part of the human form. The features are strongly marked and delicately. If one will judge of the mind by the action of one of the springs it puts in motion, a searching continual application, an unwearied industry, and an intense degree of thinking, will be the characters of this one. And assuredly, in this individual instance, we come pretty near the truth, for such do I consider the leading features of the Doctor's mind,—more activity than massive power—more industry than intuitive talent — more intense than profound thinking. To speak of the features and expression without reference to their being an index of the mental operations, they are, as already mentioned, very marked. A long protruding chin—a mouth, the corners of which speak the language of a biting satire almost without the aid of sound and articulation—a nose that, for its lines, might be a subject for the Sculptor's chissel—and "Oh! that eye was in itself a soul." Nothing more quick or searching do I remember to have seen. The forehead is more marked and protruding than it is high and capacious. It is much concealed by the hair being carefully combed down upon it. At the time I write of, that hair, once a raven black, was gradually becoming showered over by the snows of an early, a too early winter. The general expression of the whole features is that of deep and wearied thinking. The Doctor does not break up much ground in opening his intellectual battery. A searching look round his audience—a wipe over the glass of his spectacles—a slight clearing out of the organs of sound and articulation, and he begins.—In the year 1826, the time that I write about, he lectured on the Theory and Practice of Physic. These lectures were attended by a great number of students and practitioners, and even professors have I seen eagerly listening, (and well might the most hungry and the most capricious) after intellectual food, be fed there. If you want to listen to an ambitious display of the learning of our forefathers, to hear remarks upon old and broken-up theories, to a canvass of the merits of this and that useless curative indication, you may take your departure, if the Doctor will open the door for you, and wend your way to the benches where Gregory once taught; but if you take interest in hearing great views in theory and simple instructions in practice laid down in elegant and appropriate language, take your seat here, and keep it for a whole course. My memory will not serve me well to trace an outline of these beautiful lectures. The plan was original, yet do I forget its distinct originality. It followed not the systems of Sauvages, Cullen, Mason-Good, or Alibert, though to these and to all men did Doctor Thomson render the due meed of approbation; but it followed a more unerring guide—Nature, the goddess of the Doctor's worship, at whose shrine he made the offerings of his own experience and observation, throwing the produce of his industry at the footstool of her throne. Those who have read Thomson's Lectures on Inflammation will not require to be told that, on the general doctrines of Medical Science, the Doctor is great indeed. How earnestly, yet how simply did he impress his views, illustrating arguments by a splendid series of pathological drawings some of the fruit of his own unceasing industry. Those again who have made themselves acquainted with his opinions on the subject of variola, of its identity with varicella, and of the undoubted

* The Doctor was most particular in commencing his lecture at the stated hour, and the late comer was greeted by a severe look, sometimes by a cutting remark.

efficacy of vaccination, as its prophylactic, will be prepared to hear that in discussing these matters the Doctor waxed warm in support of his views. I could go on to the evening of this hot and long day to make remarks on Dr. Thomson's great qualities as a Medical Lecturer—but I must conclude this part of my notice with some observations on the peculiarity of his style and delivery. Dr. Thomson's style, I think, reached what one might call the beau ideal of Medical lecturing. The language simple, terse, and appropriate, the delivery clear, distinct, and pleasing, the manner earnest and dignified.

One must not suppose, from what I have written, that Dr. Thomson is ignorant of the history of his profession, or that his lectures were unadorned with the graces that must arise from a knowledge of the languages and manners of antiquity. In modern and dead languages he is quite conversant, and in the history of his profession, both ancient and modern, he is deeply read; an enthusiast, too, in the fine arts, for what man of genius is there whose heart does not glow to the beauties of art as well as of nature?

The life of this eminent man is, I believe, yet spared, to render the blessings of his humanity and great skill available to his fellow citizens. I feared that the case that enclosed this most labouring mental machinery would have broken ere this; but a retirement from the labours of a lecturer and common practitioner, in favour of his son, has, I hope, ensured Dr. Thomson as long a life in years as he has already in reputation.

I know not whether what I have said of him, ere he entered the Medical profession, be correct or not. It is of no consequence to enquire, for the days are gone when birth gave privilege over worth and ability like his,—and did not the Hunters come from the same obscurity to be the first and the most honored names in the Medical History of GreatBritain? Dr.Thomson, like one of them, passed his early professional life as a Military Surgeon. Going on half pay, he took up his residence in Edinburgh, where he soon rose to eminence as a Lecturer on the principles and practice of Surgery, and as a practitioner in the same branch of the profession. He was made Professor to the Royal College of Surgeons, from which chair he afterwards retired in favor of his friend and pupil, Mr. J. W. Turner. At the death of the great Gregory, he was a candidate for his seat in the University, but party-interest disappointed him. He commenced then the Lectures on the Theory and Practice of Physic, which I have spoken of, and with what reputation and success I have also endeavoured to describe—Applying the words to the Medical Sciences, I conclude by saying, nihil erat quod non tetigit, nihil tetigit quod non ornavit.

SCOTUS.

DR. CAMPBELL'S CASE

Of Anomalous Affection following the Bite of a Dog.

February 27th, 1834.

Narud, a brahmun lad of eighteen years of age, was brought to me this morning for advice; he is a stupid and timid-looking creature, trembling when spoken to, and starts on his hand being laid hold of for the purpose of examining the pulse. He says that for the last three days he has been much annoyed with fulness of the belly, and that he thinks there is a dog running up and down in his stomach, and that he sometimes barks in his belly, more frequently at night than during the day; he also complains of pain in the lower part of the abdomen, which he ascribes to the bite of the canine tenant; his general health is apparently good, no fever or thirst, no dread of water. His father, who accompanies him, says he fears the lad is becoming foolish, as he has been very dull for the last ten days, and has been for three days incessantly talking of the dog within his belly, which he describes as the same one by which he was bitten in the left thigh, about three months ago. There is a cicatrix about the size of a six-pence on the outside of the left thigh, midway between the knee and hip joint—here, he says, he was bitten by a mad dog, and his father corroborates the statement; is told that the dog will be ejected by stool, and to be of good cheer; the father is warned of the probable upshot of his son's present sensations. To have 3 purgative pills of calomel and colocynth instantly, and 2 drams of the compound powder of jalap after six hours, to be kept quiet, and strictly watched.

28th, 9 A. M.—Purged most violently, the tension and fulness of abdomen much diminished, his expression wild, and timidity as before; thirst considerable, and he drinks water largely; he says the dog has been less troublesome since the purging commenced, but is still in his belly; tongue, gums and palate very pale; the purging still continues; is assured by me that the dog was ejected in the stools during the night, on hearing which he smiles, but is incredulous.

6 P. M.—Has been purged all day, having passed about 40 stools since the exhibition of the purgatives; the countenance melancholy, and expression of eyes wild and staring; complains of headache, and of pain in the throat on swallowing water; does not dread water; is inclined to believe that the dog has left him, and does not talk about the animal as before; feels very weak, pulse small, and skin rather clammy. His father says he is sure the lad knows nothing about canine madness, and that his own (the lad's) idea is that he has been *bewitched*. Pharynx as well as palate, tongue and gums nearly white. To have immediately, calomel 12 grains, and a large blister between the shoulders.

March 1st, 9 A. M.—The blister has risen well, and he says the pain on swallowing is gone; does not dread water; several stools during the night, and he says the dog has for the present departed, but he dreads his return; gums a little ulcerated; no headache, but the countenance is anxious and suspicious-looking; the eyes wild and staring.

Repeat the calomel 12 grains, and add of sulph. quinine 5 grains.

2 P. M.—Remains free from headache and pain of throat on swallowing fluids; expression less wild, and he does not betray the timidity he formerly did; does not dread the sight of a dog, nor that of water; says, he thinks the enemy has departed, and that he now is sure it was not the dog himself, but several *buchâs* of his that annoyed him. His father says (and dozens of people whom I have interrogated agree) that the common course of events, after a person has been bitten by a rabid animal, is this—"Shortly after the bite, the bitten person gets pups of the mad dog in his belly; at about three months, the young ones begin to move rapidly up and down the patient's intestines, and being mad like their progenitor, they bite and bark incessantly; this continues for some days, during which time the young ones grow rapidly in size and strength, while their madness increases apace; this state of things lasts until they kill the unfortunate being thus so cruelly possessed of the canine litter." This narration is new to me, but is universally credited by the Natives of Nepal; and my assertion of having once, with my own eyes,* seen the inside of a man who died of Hydrophobia, where nothing of the kind existed, is received with a scornful smile, and a small share of pity for my ignorance, and indignation at my presumption in denying what "every one knows to be true."

The gums a little ulcerated. Repeat calomel and quinine.

8 P. M.—Several stools, countenance nearly natural, and the trepidation and timidity of manner almost gone; says the pups have completely left him, and that the difficulty in swallowing has not returned; is feverish, and has a little headache; pulse small, 90; feels exhausted from the purging, but rejoices at the departure of the pups from his stomach. To have quinine 5 grains now, and the same at day light.

2d.—Expression natural, no return of pain in swallowing, or fear of the pups again visiting him; gums sore, no salivation, headache across the forehead; he complains of an intensely bitter taste in the mouth. Repeat quinine to 5 grains three times during the day.

3d.—Countenance perfectly natural, and he says he feels in perfect good health, and prays for my long life and prosperity; the gums are sore, and he has the pain in the head that quinine gives; wishes to go home, is permitted to do so, but he and his father promise to bring him on the first return of illness. The poor lad is so overjoyed at his escape from the belly full of pups he thought he carried, that he will not consent to remain another day from his friends—but hastens to convey to them the glad tidings of his release from the horrors that haunted him.

The patient's dwelling is ten miles from hence, but I have made arrangements that will secure me a sight of him at intervals, and a quick transmission of him to me as soon as he is again threatened with the woeful malady that too probably will soon overtake him. Many intensely interesting questions arise out of this case; they are, however, more easily asked than answered; time will shew the fate of the unfortunate being whose life, on the day he complained of difficulty in swallowing fluids, I believed would soon terminate. Was the case one of simple Hypochondriasm? Does the fatal Hydrophobia ever give warnings of this nature? or can the active mind of man, by brooding over evils, personate in the human frame a miniature likeness of an ill to which all others are almost as nothing?

An affirmative to the last question accords with the knowledge we have of our frail construction, and the pranks which a "mind diseased" can play with it: doubtless the case was of that nature, else it would have run its fatal course unimpeded.

It is well to say, that from the time I saw the patient, I believed him to be in the first stage of Hydrophobia, and with no confidence in the use of medicine in that disease, I would have left him to his fate, had not humanity and his ardent request

* Apna ankh se dêkha.

for remedies prevailed on me to *do something*, I proposed to myself that he should be furiously purged, and that I should try the effect on his mind of an assurance that he would be ridden of the horrid contents he fancied he was charged with, to this I purposed adding the action of mercury—and without regarding the difficulty of calling the specific effects of two medicines on the system into action at once, I wished to excite a fever by giving large doses of quinine. The blister was put on to divert the incipient pain in swallowing fluids, and assist in bringing on the fever I wanted to excite. If the case is one of the Hypochondriasm, I said, the purging will do him good, and so will the calomel. If one of Hydrophobia, they can neither harm nor help him; and here ends all my Medical Philosophy in this case and the relation of it as it now stands. The future progress I shall carefully note, and place it, like this, at the service of the *Medical Journal*.

A. CAMPBELL.

Nipal, 4th March, 1834.

HOSPITAL REPORTS.

SUMMARY OF MR. RALEIGH, FOR APRIL, 1834.

"Spleen" is a term very generally made use of in this country to designate every affection to which this organ is liable, but particularly that peculiar state of tumefaction of the spleen, which is so often met with in warm, damp, and variable climates, and so frequent in Bengal, as the sequela of remittent, intermittent fevers, and other diseases, in which visceral congestion is, or has been a predominant feature of the complaint, accompanied, or succeeded by debility of the system. It is certainly too much the custom to consider this condition of the spleen as a disease *in itself*, and the attendant febrile or adynamic phenomena as effects of the local disorder, and it would decidedly be more scientific and correct, to look on this affection as a symptom—and consequence of constitutional derangement, rather than as a cause of it, for I believe tumid spleen will very seldom be found to be an idiopatic disease. Either the subject will have been exposed to an irregular method of life, vicissitudes of temperature, a contaminated atmosphere, and the miseries of poverty, mental distress, or some circumstance which has tended to interrupt the salutary processes of nature, and impair the general health, or much more frequently will have suffered from ague and fever—congestive or remittent fever, from which he or she has never completely recovered. The countenance continues pale and cadaverous, the lips pallid or bluish, the belly distended and elastic, the spleen is felt to be more or less enlarged, and somewhat tender on pressure; the lower extremities are œdematous, the skin dry, tongue pale, the urine copious and of light color, has frequent returns of febrile symptoms and of diarrhæa, trifling abrasions of the skin, the bites of leeches, or blistered surfaces, take on an unhealthy action, and ulceration sometimes occurs on the inside of the cheeks, gums, and mucous membrane of the intestines, even where *no mercury* has been taken. The blood in such cases is watery, is of dirty muddy color, scarcely containing any fibrin, and forming a soft, or sometimes no coagulum on cooling,—on inspection after death, the solids of the body are all unhealthily pale and flabby,—the spleen is generally enormously enlarged, engorged with dark grumous blood, and so soft or friable that it ruptures on handling.

Unprecise as is this description, it will serve to explain that, in this particular form of the complaint, the whole constitution is in an equally depraved condition—and that, although from the structure of the spleen, it more readily admits of distention, and consequently becomes more conspicuous than any other of the viscerae; yet, in reality, it suffers only in common with other constituents of the body—and, indeed, is not the part which in extreme cases is found to sustain the most dreadful ravages of dissolution, for in instances where the mucous membrane, skin, and subjacent cellular tissue, are destroyed by ulceration, sloughing, and gangrene—the spleen is seldom or ever known to undergo any other morbid change than that of enlargement, from being engorged with blood.

In a practical point of view, it is of the utmost importance to recognize this cachectic disposition, for whether the spleen be, or be not involved, it is this state of body which is so inimical to the action of mercury, and in which that medicine has been observed to hasten, or produce the most baneful effects, the exhibition of mercury has consequently, with great propriety, been strictly prohibited in cases of enlarged spleen—(which prohibition may prudently be extended to all cachectic states of constitution) and a treatment calculated to restore the secretory functions, and give tone to the constitution is that which is usually adopted, and is most approved of. It is not fair, however, to attribute the disastrous occurrences which do occasionally take place, such as ulceration and mortifications of the cheeks, &c.—entirely to the action of mercury, for instances do not unfrequently occur, in which these distressing evils ensue, notwithstanding that, *not one grain of*

mercury has been administered — as in the annexed case of D'Rozario. It must, however, be acknowledged that mercurial excitement does increase the debility, and either excite, or favor a disposition to disorganization, as in the cases of the child, and of the native, to be described. The injunction, therefore, *give no mercury in cachectic states of the system*, whether the spleen be, or be not enlarged, may decidedly be considered a good one.

It must not be inferred, however, because the congested spleen, symptomatic of an impaired constitution, is from the debilitating nature of the climate, more frequently brought to the notice of the Bengal Medical Practitioner than any other, that this is the *only* affection to which this viscus is subject, and that the remedies acknowledged to be injurious in one case, must necessarily be equally detrimental in others, and here the advantage of making distinction between the local and constitutional diseases of this organ presents itself, and suggests the benefit which would accrue from a more precise nomenclature, instead of including a variety of maladies, admitting of different treatment, under one common name, as "*Spleen*,"—a circumstance which has probably given rise to such discrepancy in the opinion of European and Indian physicians, regarding the most proper mode of treatment of, and the propriety of administering mercury in "Spleen disease."

Perhaps, for the purposes of practice, the diseases of the Spleen may be conveniently divided into Constitutional and Local, or into three states—

1st.—That state, co-existent with a cachectic condition of the constitution, in which mercury is *inadmissible*, and blisters or other counter irritants destroying the surface of the integuments should be employed with caution, or be entirely abstained from, in an advanced stage of the complaint. See cases 1, 2, 3.

2dly.—The Indurated Spleen, the result of former fever, or other disease from which the patient has recovered; his general health has been for some time perfectly restored, and the affection of the Spleen is a mere indolent enlargement. In which case, for the relief of fever or disease peremptorily requiring its exhibition, mercury may be had recourse to without ill consequences; but, unless imperiously called for, should be abstained from.—See case No. 4.

3dly.—Local affections of the Spleen not connected with constitutional debility, such as inflammation of its peritoneal coat—or substance, in which instances, general and local bleeding, and mercurials, are had recourse to with advantage, as in case No. 5.

It will frequently require the exercise of considerable judgment to discriminate between the first and second divisions, as they will often be very intimately connected, and the one condition disposed to assume the character of the other, particularly the second to take on that of the first, where, therefore, this is the case, and the indurated Spleen is accompanied by a weakly, or any other than a robust state of the general health, *mercury should be avoided.* It is satisfactory, however, to be aware that in cases where Spleen is merely a local disease, the same precautions against the use of mercury are not necessary, for in case of congestive fever, such as the one to be quoted, the Medical Practitioner would probably either have the misfortune to witness the speedy death of his patient, from want of those remedies which the nature of his more urgent symptoms demanded, or be accessory to an equally certain and much more miserable termination, as the effect of mercurial action on such an ill-conditioned constitution.

CASE 1ST.—*Cachexia, with enlarged Spleen, where sloughing of the mouth, &c. &c. took place, although no mercury had been taken.*

P. D'Rozario, æt: about thirty years, an Indo-Britain, who had been subject to repeated attacks of fever for six months, accompanied by enlargement of the Spleen, was admitted into the General Hospital on the 27th of August, 1833, at which time the Spleen could be felt extending as low down and as far forward as the umbilicus, was tender on pressure, and he had frequent febrile attacks, with costiveness, &c. At first, a few leeches were daily applied over the Spleen, mild aperients were administered, and he was put on a sparing diet up to the 4th September, when the tenderness of the Spleen had decreased, and he was free from fever. Spleen mixture was now ordered three times a day, a milk and sago diet, and the moxa applied at three places over the left side. By the 25th, the exchars had healed, the Spleen continuing undiminished in size, and the patient complained of rheumatic pains of the loins and extremities, particularly at the larger joints. Colchicum wine, warm bath, and iodine ointment to be rubbed over the Spleen, were now prescribed. On the 10th of October, fever of an intermittent type returned, for which laxatives and quinine were given with benefit, but he continued to have irregular paroxysms of fever. On the 30th he complained of pain in the back, which not being mitigated by warm bath, fomentations, &c., a blister was applied. About this time the countenance, which had been

gradually becoming more sallow, assumed a very cadaverous hue, the gums ulcerated, and a large quantity of saliva was secreted; in fact, he was in a perfect state of profuse ptyalism, the lower extremities swelled, and the blistered surface looked unhealthy, and not disposed to heal. A chloride of lime gargle and the compound steel mixture, were prescribed, and a more nutritive diet, with wine, allowed—the blistered surface was dressed with a stimulating application—he gradually became worse. Early in November, an ulcer formed on the inside of the left cheek, which progressed with awful rapidity, the blistered surface also ulcerated to a dreadful extent, and sores broke out on parts of his body which met with a slight scratch or other trifling injury—the face and extremities became daily more œdematous, the strength declined, and a profuse diarrhæa put a close to his miserable existence on the 16th of December, at which time the whole left cheek and inside of the lips, together with a large surface of the integuments of the back, had been destroyed by ulceration and mortification—the Spleen was of enormous size, and gorged with black grumous blood.

CASE 2D.—*Spleen affection, with ulceration of the cheek, from the use of mercury.*

J. H., an emaciated child, three years and eight months of age, had been the subject of ague and fever, accompanied by enlargement of the Spleen, for the cure of which calomel had been administered, until the gums became affected, when brought to hospital. On the 11th April, the Spleen was considerably enlarged—the belly full, the face puffy, and the left cheek on the outside from the eye downwards of a copper color, on the inside of this cheek was a foul ulcer—the gums were ulcerated, and the teeth loose and black, the strength was much reduced, and the extremities very thin. A piece of rag often wetted with an astringent lotion was placed over the ulcer between the cheek and the teeth, and a tonic aperient course of medicine, with a bland nourishing diet, adopted—by the end of the month, the child's general health had much improved—the Spleen had been reduced to its natural size, the ulcer on the cheek was healing fast, and the discoloration of the skin had nearly disappeared—at this time the child was taken from the hospital to proceed up the country.

CASE 3D.—*Cachexia, without enlargement of the Spleen, with sloughing of the mouth, &c. from mercury.*

A Seepahee of the Calcutta Militia, æt: about 30 years, had suffered for several months from rheumatism as a secondary symptom of syphilis; his general health was much impaired, his countenance unhealthy, and bloated. At the recommendation of some Bazar Native Doctor, he subjected himself to mercurial fumigation, which induced profuse ptyalism. When he presented himself for admission at the Regimental Hospital, about three weeks since, his condition was most pitiable; the face was much swelled, on the inside of each cheek was a foul sloughing ulcer, the sides of the tongue and gums had ulcerated, and a profuse discharge of fœtid bloody saliva poured from the mouth; the left eye-ball was in a state of suppuration, and protruded from the socket, the belly distended, and the feet and hands œdematous. A nitric acid and oak bark gargle, tonics and opiates, were prescribed, and an allowance of port wine and sago. Under this treatment he has improved, but his condition is almost hopeless, and it is scarcely probable that he will survive such a state.*

CASE 4TH.—*Indurated Spleen.*

Mr. R. was received into the General Hospital at the early stage of a bilious remittent fever, the symptoms of which required to be met by active remedies, and the necessity for depletion, and the administration of calomel, were evident. He was a stout subject, of about 26 years of age, and had for the last several years enjoyed perfect health, but had previously been subject to intermittent fever, which had occasioned the spleen to enlarge. On examining the side, I found that the spleen was of three times its natural size, hard, and not painful on handling. As, previous to his present attack, his general health had been good, it was determined, in consultation, to have recourse to bleeding and mercurials until the mouth was affected. The patient perfectly recovered, and sustained no injury from having been mercurialized.

CASE 5TH.—*Acute Inflammation of the Spleen.*

C. S., æt: 25, came to hospital on the 30th of March, with symptoms of idiopatic acute inflammation of the Spleen. Bleeding and a calomel purge were prescribed.

31st.—Leeches and calomel purge.

April 1st.—Leeches and saline antimonial solution.

On the 2d, the side was free from pain, but he continued to have cough.

A blister over the side, and a daily purgative for three or four days longer completed the cure.

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* Since this report was drawn up, the man is dead.

In several instances of chronic enlargement of the Spleen, I have punctured the Spleen with long needles drilled through the side, as in acupuncturation, but I did not remark that this measure was attended with any good result, and on three or four occasions the operation was followed by irritative fever. I have used the iodine ointment also freely, but am not at all satisfied that it was of much service, as other remedies were at the same time employed. In the foregoing report, I have not introduced any of the more common cases of Spleen, which, when treated in a proper manner, are usually cured.

Fever.—The Fevers which have come under my charge in Hospital during this month, have mostly been of the continued type, with more or less determination to the head and abdominal viscera, occasioning irritability of the stomach and bowels. There has also been a tendency to sudden collapse, in some cases, proceeding to an alarming extent, from which, however, the patients have rallied; and I have been so fortunate as not to have had a death from fever through the month.

CASE.—*Fever, with sudden collapse.*

J.S., æt: 47, was admitted into Hospital on the 13th of April, with inflammatory fever; determination to the head was the most marked local symptom.

General bleeding, Calomel purgatives, and cold applications to the head, were directed.

14*th.*—The head perfectly relieved, and he was tolerably free from fever through the morning, but at noon had a regular fit of ague—cold, hot, and sweating stages, succeeded by coldness of the skin and small pulse—the purgatives had acted freely, and now quininæ sulph. gr. v. every 4 hours, was ordered.

15*th.*—Had a paroxysm at noon which left him cool and free from uneasiness.

Quinine continued.

16*th.*—At this morning's visit, he was found in a state of collapse—the skin cold-wet, and blue, pulse feeble, and rapid, with oppression at the precordia, and restlessness—the tongue foul.

Calomel, ℈i.—Camphor, gr. iij.—Quininæ, S. gr. iij.—and a little warm sago now and then were directed to be administered, a mustard poultice was applied to the Epigastrium.

Noon.—He continued much the same—medicine repeated, and a little camphor mixture and ammonia occasionally given.

Evening.—Pulse very feeble and rapid, with cold-wet skin, and much anxiety.

Quininæ S. gr. v.—Opii. gr. ij. H. S.

17*th.*—Had a composed, though sleepless night, the skin not so cold; pulse still feeble and quick.

Quininæ, gr. iij. in beer ℥ 4.—every two hours.

Noon.—The tongue is thickly coated, he has had no evacuation from the bowels to-day.

Calomel, gr. x.—Quinine and beer continued.

Evening.—He is restless, has oppression of breathing—skin continues very cold, and pulse feeble—had no stool, belly distended.

Continue quinine and beer every 2 hours.
Extr. Hyosciam, gr. x. H. S.

Domestic Injection.

18*th.*—Skin warmer, and he is altogether better.

Medicine continued.

19*th.*—Skin warm, and pulse firmer, and not so quick, breathing easy.

Medicine continued.

20*th.*—Skin of natural temperature, pulse firm and quick, gums affected by mercury.

Mild Aperient.

He continued to improve, and by the 23d was convalescent.

Many of the subjects of fever had been exposed to the sun and other exciting causes, but several cases of fever, occurred among patients in hospital for other complaints, living on a spare diet. In instances where the patient has been of robust habit, general and local bleeding, mercurial purgatives, and antimonials, have been advantageously employed—and in a large proportion of cases, it has been found necessary to affect the mouth slightly with mercury, before the disease has been got under—but in some patients of less energetic constitution, despondency, and sensation of sinking and debility, with a quick, though weak pulse, prevailed from the first,—here local bleeding by leeches was substituted for the lancet, where determination to a particular organ was indicated.

Cholera.—Two patients were admitted into the wards under my charge, one on the 18th, the other on the 25th, in the collapse state of cholera: both died.

Bowel Complaint.—Very few cases of bowel complaint have been received this month, and of those none have been of serious description.

Fistula in Ano.—One case of fistula in ano, cured by operation.

Fractured Fore-arm—One case of fracture of the radius and ulna, splints were worn for one month—when they were removed; the bones having united firmly without deformity.

Case of Eruption, resembling Measles, apparently occasioned by the internal use of Cubebs, Balsam of Capaivæ, and Nitric Æther.

In my report for February last, No. IV. of the "*India Journal of Medical Science*," I described a case of eruption resembling in some of its characters, yet differing in others from, measles, and the following is a second case in all circumstances similar to the former. I should notice, that, at the time these patients were affected with the eruption, several cases of measles had been met with in Calcutta, and that I had one instance of the disease in the hospital—it will however merit remark, that in both these patients the eruption did not observe the usual course of measles, it came on more abruptly and disappeared more rapidly than it usually does in measles, and without causing desquamation of the cuticle.

April 23.—H. D., æt: 22 years, a stout woman, had virulent gonorrhæa of some months standing, with inflammation and great enlargement of the upper and lower chain of inguinal glands on the left side, leeches were applied to the groin for seven successive days, when the inflammatory action appearing subdued, a lunar caustic blister was made over the indurated glands. As internal remedies, she had at first, a brisk purge, and took three times a day, a mixture composed of cubebs.; bals. capaivæ and nitric æther.

By the 30th of the month the gonorrhæal discharge had *completely ceased.*

On May 1st, after a very restless and feverish night, the body was found covered with a florid red eruption, the eyes were inflamed, face flushed, and swollen, she had a hoarse cough, and occasional sneezing—the cubebs mixture was *omitted*—and a smart calomel and jalap purgative administered.

May 2d.—The eruption is nearly general over the body and extremities, is considerably elevated, and has just the appearance, and feel of measles.

P. Jalapœ Comp. 3 i.

3*d.*—The eruption, not so much raised as yesterday—in other respects the patient is the same.

Rept. Pulv. purg.

4*th.*—The eruption has flattened down to the natural level of the integument, and the surface of the skin is *smooth*; a copper colored stain only remains.

5*th*, 6*th*, *and* 7*th.*—The marks of the eruption daily became more faint—and by the morning of the 7th was no longer distinguishable, the cuticle had assumed its natura lappearance, and was *not thrown off.*

Ulcer.—J. J., æt: about 34, a stout sailor, was admitted into hospital on the 30th of July 1833, with a very large sore on the front of the left leg, which he attributed to a severe blow, he had some months previously received, on the shin. The surface of the sore was foul and ragged, the edges everted, and callous.

The surface and edges of the ulcer were destroyed by caustic potash—poultices applied, occasional aperients given, and he was put on a mild diet—under this treatment the wound, which was at first about 8 inches long, and four or five inches broad, healed, excepting at two situations, where small openings remained, through which fungous granulations sprouted. Repeated application of caustic, and innumerable local remedies failing to induce a healing disposition. On the 7th of March last, I cut down on, and laid bare the tibia for about four inches, which exposed a *fissure*, running perpendicularly along the anterior part of the shaft of the bone, in the course of this groove, I applied the actual cautery—the application of poultices was continued, healthy granulations formed, and the wound healed without any exfoliation of bone having taken place by the end of April.

March 11*th.*—Mrs. G. had fallen into a well, and received an extensive wound of the scalp over the vertex—laying bare a surface three inches square of the skull, which, from having been grazed by the body with which it came in contact, was rendered rough,—the flap of scalp having been replaced, the parts were covered with rags dipped in cold water, and a daily laxative given—considerable discharge issued during the granulating of the wound, but it healed without exfoliation of the bone by the 12th of April.

Staphyloma of the Globe of the Eye.—W. D. had a large staphylomatous protrusion of the right eye, occasioning constant irritation, and frequent attacks of acute inflammation, with severe pain of the head and face. On the 13th of March, I removed the protruding portion of the globe, which had the desired effect of relieving the patient from the inconvenience he previously experienced.

CHARITABLE INSTITUTION,

For affording Medical Assistance to Indigent Europeans and East Indians.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—I am sensible that I have undertaken a task, on the present occasion, of some delicacy; as I have, however, no fault to find with any one, or with any institution, I am not without hopes, that I shall be able to perform it without offence.

The task in question is to propose for your consideration, and for that of the more opulent of this community, the establishment of a Charitable Institution for affording Medical assistance to the indigent European and East Indian population of this city.

My attention was first drawn to the subject, from reflecting on the mode in use of admitting patients into the Presidency General Hospital, and from the hope, that that noble institution might be rendered more generally useful to the public, by attaching to it an Admission Room for the purpose of affording Medical assistance to out-patients, and of selecting the most suitable cases for treatment within the precincts of the Hospital. A little reflection on the subject soon satisfied me, that the great distance at which the General Hospital is situated from Town, must ever form an insuperable barrier to its being of much use in the mode contemplated. It then occurred to me that these disadvantages might be surmounted by establishing an Admission Room to the Hospital in Town, and to this plan the great amount of good, which I am led to believe has been quietly and unobtrusively effected by Mr. Raleigh's Branch Eye Infirmary, strongly inclined me. Notwithstanding the plan is open to objection: the Medical Officers attached to the General Hospital are perhaps already fully occupied, and might be unable or feel disinclined to give a farther portion of their time to attend on the poor of Calcutta. This difficulty it is true might be obviated by appointing an additional Medical Officer to the General Hospital; but such a measure would necessarily entail additional expense on the Government, which they might not feel inclined to defray; it might besides lead to collisions of opinion between the several Medical Officers attached to the Hospital, which had better be avoided.

Having thus been reluctantly compelled to relinquish both the foregoing plans, it appears to me, that it would be the least objectionable one, to establish a Charitable Dispensary for the relief of indigent Europeans and East Indians, totally unconnected with the General Hospital, save, by the Medical Officer in charge being invested with the power of recommending such persons, as he might consider fit objects, for admission into the Hospital.

Such an institution might be established and maintained at a very trifling expense. An apartment in a central part of Calcutta, might be hired for little or nothing, and perhaps the Government on a suitable representation being made, might allow the prescriptions of the Medical Officer in charge to be made up at the Honorable Company's Dispensary. It would thus only remain to provide for the salary of the Medical Attendant, and for this, perhaps 100 roopees per mensem would suffice—not that that sum would be any thing like an adequate remuneration for his services; but that perhaps a Medical Officer might be found to undertake the duties for that allowance, or even gratuitously.

There can be little doubt in my opinion, that such an Institution would be eminently useful. Ample means have been taken to afford relief to the *natives* in the hour of sickness. Are the unfortunate of our country and of our own faith less deserving of our sympathy? Independent of these grounds, however, there are other considerations which particularly plead for the poor European. In him the progress of disease in this country is rapid beyond belief, and a case which might be perfectly tractable at the commencement, in the course of a few days by neglect or mismanagement, not unfrequently passes beyond the power of medicine.

The unfortunate European is besides frequently, if not generally, at a distance from his family and relatives, without a friend to advise him or show him the necessary attention in the hour of sickness; and he is, I regret to say, too often of habits so thoughtless or intemperate, as to hasten the naturally frightful progress of disease in tropical regions.

The number of Europeans engaged in the navigation of our shipping is great, and a portion of them is generally to be found unemployed, and living in a state of great wretchedness and distress; and now that an unrestricted resort to India is permitted by law, a great increase to this unfortunate class of persons may naturally be expected. The East India Community is likewise a numerous body, and it cannot be doubted from the late mercantile calamities, that distress to a great extent prevails among the less opulent of its members.

But it were idle to enlarge farther on the subject, the advantages, if not the necessity of an Institution of the sort, must be obvious to all—the expenses, which would be incurred by it, would probably be under 2000

roopees per annum, a sum which surely could be raised without difficulty by voluntary contribution, and by collections made in aid of the Institution, at the several churches within this city.

Before concluding, it may be as well at once to declare, that my object in bringing this subject to your notice, and through you to that of the public, is perfectly disinterested; if the situation, which I have now chalked out, were offered for my acceptance, I would decline it, and indeed if the duties are to be performed, as I intend they should be, the office would be no sinecure; for in my opinion it ought to be made incumbent on the Medical Officer in charge, to give his personal attendance, for at least two hours every morning, and at least one hour every afternoon.

Should you concur in these sentiments, Gentlemen, you will no doubt aid me with your pens, in carrying the proposal to a successful issue; but should you fail me as allies, I shall not the less feel satisfied that TIME will not.

I remain, Gentlemen,

Your obedient Servant,

JAS. HUTCHINSON.

May 6th, 1834.

ANALYSIS OF BOOKS.

ABSTRACT OF THE LONDON MEDICO-CHIRURGICAL TRANSACTIONS, VOLUME XVIII., PART 1.

We lose no time in submitting an abstract of this instructive work, recently received from England, to our readers. The first three papers are devoted to the consideration of the same, or nearly the same subject—and, although last in the order of insertion, we commence with Dr. Elliotson's; because it contains something like a historical sketch of the disease it describes. The article is headed—"*On the discharge of fatty matters from the alimentary canal and urinary passages, by John Elliotson, M. D., &c.* The Doctor commences by a reference to the fact that Ambergris, a fatty substance, is supposed to be produced by disease in the alimentary canal of the Spermaceti whale, where sometimes it accumulates to a large quantity, and a mass amounting to 182 pounds, has been found in the animal. Fatty matters, which have an external origin, are sometimes discharged from the *human* alimentary canal. Riverius states, that he saw fatty substanees passed from the intestines, in one case, after a large quantity of fat had been eaten—or been taken in broths, and in another, after a large quantity of oil had been swallowed. Some suppose that olive oil may concrete with mucus when taken into the alimentary canal, and thus explain certain cases of this description. Old authors, however, detail instances of fatty discharges from the intestines that do not appear to have originated externally.

In some instances the fat was discharged *solid;* in others liquid; and in some both solid and liquid. Mœlenbroccus relates that a man at Halle, discharged from the bowels, for two years, a large quantity of fatty substance, not unlike the fat of beef, grew thin and weak, and died tympanitic. Mœbius mentions a similar discharge of a substance exactly like human fat, from a woman who wasted away. Fabricius Hildanus tells of a pious matron, who suffered some years from a pain at the stomach, and at length became much worse; when, one day, the pain extended all over the abdomen with extreme severity, and she discharged above three pounds of fat. From that moment she speedily and perfectly recovered. The fat was white, very pure, and in detached pieces. In the Edinburgh Medical Essays for 1752, is an account of a weaver, about 40 years of age, who in attempting to take up a very heavy vessel, felt his back bone, immediately above the sacrum, make a great crack. The pain long continued severe. Three months after this, he had just recovered enough to crawl out of doors and perceived among his exerements a whitish substance about the size of a walnut, like tallow. It melted with heat. During several days after, he observed several pieces of the same substance of the size of kidney beans, or peas, came away with his stools. No further account is given, but that the man was still unable to follow his business. Dr. William Scott of Howick, in 1777, related the case of a servant girl, who after working hard in warm weather, was seized with pain in the stomach, nausea and colie. After taking rhubarb boluses, with calomel, &c. she began to void by stool, fatty substances in great numbers, about the size of nuts, beans, &e. They burnt in the fire like tallow. After passing these in small quantities for three weeks, she got quite well.

Dr. Babington, in the philosophical transactions for 1813, mentions a lady who suffered severely, for many years, from what was thought the irritation of gall stones. She was advised to take occasionally two or three ounces of olive oil at a time. This always gave almost immediate relief, and globular concretions were uniformly found in the motions, from the size of a large pea to that of a moderate grape, of a cream colour, slightly translucent, cutting like wax, and melting by heat. Mr. Brande reported that they consisted of olive oil and mucus, and

they were regarded by Sir Everard Home, Dr. Babington, and Mr. Brande as thus derived from an external source. Considering, however, that the lady had attacks resembling gall stones before she took the oil, and was speedily relieved by the evacuations which it occasioned; that others have experienced similar discharges and attacks without taking any oil, for instance the woman mentioned by Fabricius Hildanus, and the girl mentioned by Dr. Scott; and that cases occur in which liquid fat, unquestionably not of external origin, is discharged from the intestines; Dr. Elliotson expresses his conviction that these substances were formed by disease, and as an animal oil is not easily distinguished from a vegetable fixed oil, he imagines that the oily matter was only presumed to be olive oil.

Dr. Elliotson witnessed himself two cases of fatty discharge from the bowels. One of them, a patten-maker, aged 45, was admitted under his care into St. Thomas' Hospital labouring under phthisis and diabetes mellitus. He ascribed his complaints to grief. Soon after admission, he complained of excruciating pain in the abdomen and back, and of diarrhœa. In his stools, which were often rather pale, Dr. E. observed a quantity of yellow substance, like concrete oil. It burnt in the fire like oil. He continued to discharge more or less of this till his death. After his death Dr. E. learned from his wife, that long before his urine was excessive, he lost blood from the bowels for twelve months: that a quantity of stuff like melted butter, was then observed in his motions, and no blood was discharged afterwards. The quantity of fat she said had been enormous. The discharge had continued six months before the urine became excessive. The fatty matter was shown to Drs. Prout and Farraday, who were satisfied of its oily nature, and the former could detect no difference in it, from human fat, when separated from its membranes by heat.

On examination after death, all the intestines looked yellow and greasy. Numerous black points were seen in some parts of the mucous membrane, the same that are frequently noticed after fever and chronic diarrhœa. But no other appearance existed in the alimentary canal. The liver was healthy and the gall-bladder full of thick dark bile. The pancreatic duct and the larger lateral branches were crammed with white calculi. The kidneys were sound the lungs were tuberculated and ulcerated.

Mr. Pearson, of Clapham showed Dr. E. a poor woman, labouring under this disease, from which and phthisis she afterwards died. She had formerly been in the hospital for chronic rheumatism. Her liver was much enlarged and painful. Her urine scanty and full. She was generally relaxed, and the evacuations accompanied by great pain She for many months vomited several times a day. The fœces were very pale, and almost destitute of fœcal odour. She passed daily about two ounces and a half of fat, and a third of an ounce of oil; but the quantity of the latter varied considerably. After death no disease was discernible in the alimentary canal or urinary organs. The liver was healthy in structure, but very large and pale, destitute of bile, no less than the gall bladder, which contained a thick greasy mucous not inflammable. Dr. Prout found the fatty substance to be the same as in the other instance.

Tulpius relates a case in which fat was discharged from *both the bowels and the bladder*. Mr. Pearson states also the case of an old lady well known to Dr. E. whom he visited in March 1829, who had for nine years been subject to severe attacks of gall-stones. She complained also of dull pain in the region of the liver. Her constitution was gouty. For some months the fœcal evacuations had been scanty and almost free from fœcal odour. The urine was pale and in proper quantity. About a month afterwards she observed in her evacuations a thin concreted fatty looking substance, and the stools were as above described, without the least appearance of bile. She observed that oil also passed the bowels in a liquid state and quickly concreted; and that a similar oil passed with the urine and floated on its surface, but, when removed, concreted into the same appearance as the fat from the intestines. The quantity of oil which escaped from the bowels was such as to oblige her constantly to wear a napkin. Various remedies were exhibited, but nothing did real good. Without any other particular symptom she emaciated down and died on the 29th October of the same year. No post mortem examination was allowed. Dr. E. further mentions, on the authority of Dr. Prout, that several times fatty matter has been seen by that gentleman voided in the urine. For nine years past he has been accustomed to consider this appearance in the urine as most unfavourable, as in every instance in which he has had hitherto an opportunity of tracing the result, malignant disease of the kidney and bladder has supervened, and after a greater or less time proved fatal. Dr. Elliotson observes in conclusion—

"From a comparison of these different cases, it appears, that the fatty matters discharged are of various consistence,—some solid, and some fluid, though concreting in the external temperature. Chemists consider

that animal oils are composed of two substances, the one solid and called Stearine, the other fluid and called Elaine, the various proportions of which to each other occasion the different consistence of different oily matters. Upon this diversity of their proportion therefore, must, I presume, depend the diversity in the consistence of these discharges.

It also appears that organic disease of neither the alimentary canal nor any other part is necessary to the disease, though, in all the cases that have proved *fatal*, and been investigated, there have been found marks of disease in either the alimentary canal, the liver, or the pancreas; and in many, decided disturbance of the liver occurred during life.

The affection accordingly, has sometimes been temporary, sometimes occasional; sometimes accompanied by various incidental symptoms; sometimes unattended by severe consequences; and sometimes has proved fatal: agreeing in these points with so many other diseases.

It may be a question whether the fatty discharges from the bowels were derived from the liver or the intestines. The pain at the epigastrium and right hypochondrium experienced in some cases, the jaundice sometimes noticed, the total deficiency of bile in the motions of some of the patients, and the unctuous nature of most biliary concretions, together with the natural presence of unctuous substances in the bile, may favour the opinion of their hepatic origin. I am at a loss to say whether the completely oily appearance of the coats of the intestines, in the man whom I opened, favours the opinion of their intestinal origin. If this is their source, I am at a loss to which portion of the tube to ascribe them.

In regard to treatment, the lady mentioned by Dr. Babington was always relieved almost at once by a few ounces of olive oil, and Dr. Simpson appears to have cured two cases by the exhibition of two doses of it. In imitation of this practice, I gave my patient two ounces of olive oil for two successive days, and four ounces on the third, which, however, he made two doses of, with the effect of vomiting and purging; and he certainly from that time discharged much less of the oily matter, and suffered much less pain in the abdomen and back. But the disease, I fear, lies as open to enquiry both in its pathology and its treatment, as the analogous disease of diabetes.

Cases and observations connected with disease of the Pancreas and Duodenum, by Richard Bright, M. D., and one of the Physicians to Guy's Hospital.—The author of this article avows that his cases and observations are chiefly intended to call the attention of the profession, to a particular symptom of disease but little noticed, where a portion more or less considerable of the alvine evacuation assumes the character of an oily substance resembling fat, which either passes separately from the bowels, or soon divides itself from the general mass, and lies upon the surface forming a thick crust, particularly about the edges of the vessel, if the fœces are of a semifluid consistence, sometimes floating like globules of tallow which have been melted and become cold, and sometimes assuming the form of a thin fatty pellicle over the whole, or over the fluid parts, in which the more solid figured fœces are deposited.

This oily matter (continues Dr. Bright) has generally a slight yellow tinge, and a most disgustingly fetid odour. He submitted a portion of it to Dr. Bostock for examination so long ago as 1828, and he declared it to be adipocere. Dr. Bright's first case is one of diabetes with supervening icterus from obliteration of the common bile duct, caused by disease of the pancreas and malignant ulceration of the duodenum—with copious discharge of fatty matter in the dejections. The patient, aged 49, was a man of sober and regular habits, and began to complain in March 1827, of immoderate thirst and appetite, with a constant pain in his loins. He made water very frequently, and his urine was of a pale colour. These symptoms, accompanied by emaciation increasing upon him, he applied for advise successively to several medical men. It was not, however, till the middle of August following, that his disorder was pronounced to be diabetes mellitus. In the beginning of September he first became affected with jaundice, but his change of colour was not preceded by any painful sensations. On the 4th December Dr. B. first saw him. He was very weak. His urine, of which he made about nine pints in 24 hours, was deep coloured. It was very sweet and had a spec. gr. of 1039. The directions given were to live upon animal food, with a moderate portion of greens and lettuces. Between the 5th and 18th December the urine gradually diminished in quantity and sp. gr. Attention was now more particularly directed to the obstruction of the bile, and he daily took pills composed of blue pill and extract of taraxacum. On the 24th December, the skin continued tinged of a bright yellow colour. From this time forth the patient might be said to have lost altogether the diabetic disorder. On a more minute examination of the liver, than previously, it was very distinctly felt, hard and solid, three or four inches beneath the ribs. The gall bladder enormously distended could be very plainly felt. The mouth had become very sensibly affected, accordingly the mercurial pill was discontinued, and the taraxacum alone employed with alkaline tonic mixture. On the 28th December, without any notable change of

symptoms, he began to pass *a quantity of yellowish fatty matter, much resembling butter that had been melted and become solid.* This matter followed the fœces, and as it was evacuated in a melting state, it was perceived on the surface of the dejection. The origin of this change could not be traced to any thing that he had eaten, for he had been for some time on a rigid system of diet, and had taken nothing of a fatty nature. Meat, indeed, he had used in abundance, but carefully divested of the fatty parts. For the sub-carbonate of soda in the tonic mixture, liquor potassæ in the proportion of 15 minims to the dose, was substituted to meet more effectually this symptom.

On the 31st December, Dr. B. found that this alteration in the mixture had done away entirely with the oily character of the motions, three of which copious in quantity were then passed in the 24 hours. The patient, however, was evidently growing weaker and more emaciated from the obstinate obstruction of the gall bladder, and the consequently defective assimilation of the nourishment. The taraxacum seemed indeed to supply the place of bile so far as its merely stimulating effects, and the consequent action of the bowels were concerned ; but the evacuations were of an unhealthy character, made up of half digested food, pasty, deficient in colour, and feculent odour, and more copious than they would have been had the usual proportion of nutritive parts been abstracted.

On the 8th January 1828, the patient was more debilitated and still thoroughly jaundiced. He passed four or five stools in the 24 hours, somewhat relaxed, and *now again containing some of the fatty matter* already described, as well as portions of undigested meat. Appetite good—sleep disturbed—tongue brownish in the centre, but moist—pulse 84—urine high coloured, sp. gr. 1020. On the 13th complained of severe pain on the right passing to the left side. Ordered to be cupped on the right side to 8 ounces, and to take 4 grs. of blue pill, with 2 grs. of extract of poppies every night. On the 16th, the bowels became very much relaxed, motions of a dark colour, and still containing a little oily matter. 21st January, much weaker—bowels relaxed. The feet now for the first time observed to be œdematous. Skin remained of a deep yellow. From the beginning of February, he was considered a dying man. He expired without pain on the 1st March, worn out with emaciation and debility. On examination of the body both pleura costalis and pulmonalis and pericardium were found tinged with bile. The abdomen contained rather more than a gallon of dark olive coloured fluid. The gall bladder was distended with dark bile. The liver of a dark olive colour—the ducts greatly enlarged. The common duct large enough to admit the little finger freely when passed from above downwards, and its internal surface presented a honey-comb appearance, and terminated by a cul de sac in the diseased substance of the pancreas, and at its shut end, a rough white deposit had taken place, probably of fibrine or cholestrine. *The head of the pancreas* formed with some of the surrounding glands a hard globular mass, round which the duodenum turned, and to which both it and the pylorus were firmly joined, and in two parts where the pancreas and duodenum were welded together by disease, ulcers of a hard scirrhous character had taken place, penetrating the whole thickness of the intestine, one of them of the size of a shilling and the other not larger than a silver penny piece. The pancreas was hard and cartilaginous to the touch, and of a bright yellow colour. The kidneys were to external appearance healthy ; but the tubular parts showed themselves more plainly than usual, when the kidney was torn open.

Dr. Bright's next case was one of icterus from obliteration of the common bile duct, caused by disease of the pancreas. The patient was a female aged 50. There was also malignant ulceration of the duodenum, and fatty matter had been passed during life in the dejections. The third case was that of a young female aged 21. She laboured under anasarca and slight jaundice, and passed fatty matter from the bowels. After death the whole of the intestines were laid open, and fungoid excrescences, and malignant ulcerations were found distributed at irregular intervals from their commencement at the pylorus, to the termination of the colon. The liver in texture was natural but gorged with bile. The pancreas was most deeply involved in the fungoid disease, and near its head formed a hard mass. The spleen was unusually small.

When (pursues Dr. B.) we draw a comparison between the three foregoing cases, a very close analogy in many circumstances may be traced. In all of them chronic ailment terminated, sooner or later, in jaundice, and in all of them a great peculiarity of the character of the dejections existed. In the result of the examination after death, we have likewise some circumstances that exactly coincide in all, *obstructed biliary ducts ; the liver gorged with bile ; fungoid disease attacking the head of the pancreas, and a malignant ulceration on the surface of the duodenum.* The question to be solved is, upon which of these diseased conditions, if upon either the peculi-

arity of the alvine evacuations depended? Dr. B. who states his argument in a very candid manner, evidently leans to the idea, that disease of the pancreas and duodenum is the chief agent in producing fatty evacuations of the bowels. In two cases in which he was afterwards consulted, and disease of the pancreas was suspected, he was induced, from the absence of this symptom, to withhold his assent to the diagnosis. After death, the pancreas in both was found perfectly healthy. Nevertheless, though Dr. B. was not wrong in his negative diagnosis, yet he frankly confesses that it is highly probable his grounds of conviction were fallacious; so that he should not have produced those cases, but as very strongly showing the insufficiency of all our present diagnostic marks. He considers the grounds of his diagnosis fallacious because in other cases, which he also records, almost all the circumstances of the disease and of the dissection, including the fungoid disease of the pancreas, coincided with the three previously detailed; but the peculiar symptom on which he had laid stress was wanting.

In the minor degrees of pancreatic derangement, perhaps the local pain is the only symptom from which in the present state of our knowledge, we ever expect to derive any information; but when the volume of the gland increases, or its structure undergoes any change, it is possible that by its pressure it will produce some effects upon the functions of the surrounding organs, of which indigestion, sickness, and jaundice, are the most prominent; but as all these arise from a variety of causes, they are not calculated to throw much light on the disease; when combined, however, they naturally fix an attention upon one determinate point in which the pancreas, from its situation, may be implicated. It is highly probable that we shall hereafter discover peculiarities arising from the sickness, dyspepsia, &c. proved to afford decided evidence of the pancreas being deranged. The profuse watery discharge in pyrosis, for instance, may well be conceived to have such an origin.

Dr. Bright concludes—

With regard to the jaundice connected with pancreatic disease, the history of its gradual progress, and the dark dingy hue which it assumes, the emaciation with which it is attended, and the frequent opportunity which it affords of ascertaining the distended fundus of the gall bladder long before death; these, if not marks decidedly diagnostic, are, at least, such as direct us to the probable existence of disease in the pancreas; but some more positive indication is still wanting, which may possibly be hereafter recognised in the peculiarities of the alvine evacuations.

There is but one further observation, which I would make in connexion with the cases which I have related. All those in which the oily evacuation has been observed, have been cases of decided malignant; and (as far as the pancreas is concerned) we might perhaps say, scirrhous disease. Now it is a fact, which I have observed in several cases, that the bile is very apt to undergo that change, which leads to the deposit of concretions of adipocire in the gall-bladder, in patients labouring under scirrhus as females with scirrhous mammæ, for instance, where the disease either has or has not attacked internal organs, and I think it arises as a fair question, therefore, whether the peculiar appearances of the alimentary discharges may not depend upon the same disposition, be it what it may, which leads to this deposit in the gall-bladder; and should this prove to be the case, the symptom would be diagnostic of the nature of the diseased action rather than of its seat.

The third paper in the order we have preferred to give them in, is by Mr. Lloyd, Assistant Surgeon of St. Bartholomew's Hospital, *being a case of jaundice with discharge of fatty matter from the bowels in a gentleman, 48 years of age.* We have devoted so much space to the papers of Drs. Elliotson and Bright on the same subject, that we could not enter into the particulars of the one in question; even if it contained any thing of a remarkable nature in its history, which to us it does not appear to do, with the exception of the following relative to the appearances after death. The duodenum towards its middle, including that part into which the ductus communis choledochus enters, was so contracted, that its cavity was in great part obliterated, so much so, that till separated from its adhesions, it would very little more than admit the larger end of a small blow pipe to pass through it. The greater disease was at the posterior part of the intestine connected with the head of the pancreas. In no other portion of the alimentary canal was any appearance of disease detected. The pancreas was healthy, except at that part more immediately connected with the duodenum, where it had undergone some slight degree of induration, as if it had been inflamed. Its duct at the termination of the duodenum was completely obstructed. The liver was much enlarged. The gall-bladder much distended. The liver gorged with bile, and the pori biliarii so large that they readily admitted the fore-finger.

Mr. Smith's *case of Œsophagotomy* will be found in our subsequent columns among the selections. By most writers, Mr. Smith remarks, this operation has been represented as only warranted when the

foreign body projects externally, which they seem to consider requisite as a clear indication of its presence, and as a guide for the division of the soft parts. This projection *may* facilitate the operation, but is *not* essential to its safe performance. As long as we are certain of the presence of the extraneous substance, the operation may and ought to be undertaken, even though it not only does not project, but cannot be felt externally. If the projection of the Œsophagus is deemed advisable for its easier incision, we possess the means of producing this artificially.

In performing the operation the situation of the external incision will, in some measure, depend upon that of the body to be removed, but as the pharynx tapering gradually in its descent, terminates in the Œsophagus, immediately under the larynx, it is here that a bulky substance is most apt to be detained. In reaching the Œsophagus at this place, the only parts of consequence whose injury is to be dreaded, are the inferior thyroid artery and recurrent nerve: but these will not be wounded if the plan is adopted of separating the deeper seated parts by the handle of the scalpel and the finger instead of the knife. The only real difficulty in this operation is, in the last stage when the foreign substance does not project; but by the introduction of a catheter through the mouth when the level of the carotid artery has been reached, the soft and dilateable gullet is readily raised upon its point through the external wound, and above the vessels and nerves in its vicinity.

Cases of sloughing abscess, connected with the liver, with some remarks on encysted tumours of that organ, by Cæsar Hawkins, Esq. Surgeon to St. George's Hospital.—The first part of this valuable paper treats of encysted, and the second of encysted *hydatid* tumours. In illustration of the first class of disease, we have given at length among our selections, a formidable case, being the first on Mr. H.'s list. His next is that of a Mrs. Mullers, aged 22—admitted into St. George's, 30th April 1832. Three months before her admission, after what she called a violent cold, she was attacked by pain in the region of the liver, and about a month after the pain commenced, she observed a small swelling about three inches above the umbilicus, and midway between the linea alba and the edge of the lower ribs on the right side. The swelling has been progressively enlarging since. On admission there was a large fluctuating tumour situated at the under margin of the liver, and apparently intimately connected with it, with considerable induration round the swelling, which prevented the outline of the liver itself from being distinguished. Pain and tenderness on pressure—whole surface of the body jaundiced—pulse low and rapid—countenance anxious—tongue dry and covered with a foul brown fur. Next day a needle was introduced into the swelling, and on its being ascertained that it contained matter, the opening was enlarged with a lancet. About 8 oz. of matter came away, which give her immediate relief from pain; it was allowed subsequently to escape into a common poultice. The evacuated fluid was thin, and of a light brown colour, and could scarcely be called purulent; it was mixed with nitric acid, but the existence of bile in it was not satisfactorily made out. The relief from the pain and fever continued, and she was on the whole less jaundiced, but she had occasionally an attack of fever, and increased pain and yellowness, which was always relieved by a calomel and senna purgative. The discharge continued of the same kind, but was occasionally mixed with blood. In the beginning of June, though her general health was on the whole improved, the discharge became nearly constantly dark, as if mixed with blood; excoriation came on in the skin around the puncture, which, by June 26, extended over a surface as large as an orange, but unattended with much pain, and the integuments below the excoriated part were hard and prominent, as if germinating a fungus; the depth and circumference of the cavity were, however, now a good deal diminished. A few days afterwards the hardness was succeeded by sloughing of the aperture, which spread slowly and gradually, but with occasionally increased rapidity to a considerable size. The hardness and redness of the skin, and separation of the cuticle around the ulcer, always preceded the sloughing, and it was observed that a deeper orifice, probably that in the lower tendon of the rectus muscle near the sore, increased slowly in size, while the sloughing of the integuments and abdominal muscles above took place to a much greater extent. The discharge still continued,—watery, and occasionally mixed with blood, and the smell was peculiarly nauseous and disagreeable, and the excoriation of the skin was invariably greater, if the discharge was allowed to rest upon the surface. Masses of white fungous projections were sometimes seen in the cellular texture, where it was exposed by the sloughing of the skin. A variety of applications were employed without avail, and the patient sunk under the disease on the 26th of October, at which time the sloughing surface was about seven inches broad in one direction, and of nearly the same extent in the other, the sloughing progress having thus continued for nearly four months

On examining the body it was found, that the sloughing had destroyed nearly the whole thickness of the abdominal muscles, in the centre of the sore; the peritoneum lining them being loosely adherent to the surface of the liver, and both layers of this membrane being dark coloured, and almost, if not quite dead. The cavity of the peritoneum, however, was entire, nor was there any trace of inflammation except to a very small extent round the central opening. The structure of the liver was remarkably healthy throughout, and it was of its natural size; on making a section of it from behind, towards the slough, the line of its natural surface was also seen to have been preserved, but close to the peritoneal covering was a yellowish white mass about the size of a small nut, with slight condensation of the liver around it to the extent of an inch. This substance was broadest towards the slough and its apex extended about half an inch into the substance of the liver. There was no appearance of the cavity in which the matter was originally confined, unless both in this, as well as the other case*, the white substance was to be regarded as a kind of cicatrix left by the complete obliteration of the cavity, the other viscera were quite healthy.

In this case as well as the other, the patients were both relieved for a time by evacuating the fluid, and the cavity appeared to contract with proportionate diminution of the discharge, and after death they were found so far obliterated, that it was difficult to decide positively where the fluid was situated. In both cases, about a month after the puncture was made, a new action seemed to take place, the discharge became mixed with blood, and a sloughing sore was produced, having a peculiar appearance, attended with excessive fœtor, and wholly unchecked by either local or constitutional remedies; the aspect of the sore being so peculiar as to suggest the idea of its being the result of a malignant disease, and probably being of the nature of fungus hœmatodes.

It is quite clear Mr. H. thinks, that although the first symptoms of the disease resembled those of *abscess in the liver* they were not really cases of that kind. The matter evacuated was not purulent, and did not resemble what he had seen in any case of abscess of the liver. When an abscess forms in this viscus, it takes place in its *substance*, not immediately *below the peritoneal membrane*. Neither were they instances of *abscess of the abdominal muscles*. It is true that an abscess situated over the liver will sometimes produce pain in the right shoulder, and jaundice, and may thus suggest the idea of its being *within* the liver, but such a mistake can only take place previous to a puncture being made. The depth and the situation in which the matter was secreted, in these cases, and the nature of the fluid, at once disprove this supposition, independent of the preceding symptoms. The fluid was also such as Mr. H. states he has never seen formed in abscesses of cellular membrane, and was mixed with bile, which is scarcely likely to occur in an abscess of the abdominal muscles.

His impression, from a consideration of the symptoms and peculiar progress of those cases, and the examination of the parts after death, is, that the disease originated in one of those *encysted tumours*, which not unfrequently form on the surface or at the margin of the liver, below the peritoneal coat, and which may be termed *aqueous encysted tumours*. These cysts are also met with in a variety of other situations, on the surface of the spleen or kidney, in the spermatic cord, where they are called encysted hydroceles,—in the orbit,—in the brain, &c. Our author dissents from the opinion of Dr. Hodgkin and others that these cysts originate in the obstruction of an excretory duct in a secreting organ. Mr. H. prefers the term *aqueous* encysted tumour to that of *serous*, because probably in the origin of all of them the contents are not serum, but nearly *pure water*, till the secretion has been altered by inflammation and other circumstances.

Every person in the habit of examining the human body after death, must have often seen these aqueous encysted tumours on the edge or surface of a healthy liver, or slightly embedded in its substance, where they are met with of various sizes; but seldom above that of a walnut; but the fact of their enlargement so as to constitute a disease, and the symptoms produced by the tumour during its progress, are probably little known, and often confounded with other diseases. Indeed the cyst will sometimes increase to a considerable size, and yet the symptoms will remain comparatively trifling as long as the first simple characters of the complaint are still preserved.

Case.—A boy, about twelve years of age, was admitted into St. George's Hospital, under the care of Dr. Chambers, in August 1822, when I resided there as House Surgeon, having a tumour of considerable size below the ribs on the right side, the ribs being raised by the tumour, which evidently fluctuated. We had not the least disturbance of the system, nor any derangement of the functions of the liver, much less were these symptoms of an abscess of that organ; the skin was quite moveable, and free from inflammation,

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* See Selections.

and slight inconvenience from the size and pressure of the tumour, was alone complained of. After he had been in the hospital a short time, a flat trocar was introduced by Mr. Brodie, below the ribs, in the part where fluctuation was most distinct, and a pint and a half of clear colourless water was drawn off, which did not appear to contain any albumen, as no coagulation was produced by heat. Pressure was made by a bandage after the operation, which appeared to produce complete obliteration of the cyst for the wound healed directly, the boy had not the least fever or other bad symptom from the operation, and left the hospital perfectly cured.

The symptoms will become obscure if the cyst is much thickened, so as to give very much the same feeling as that which is communicated by a solid tumour. Doctor Abercrombie mentions a case of this kind where fluctuation was with much difficulty perceived, although a cyst was punctured, from which nine or ten pounds of clear serous fluid were evacuated, and when the patient died a few days afterwards, another cyst was found between the liver and the diaphragm, containing no less than eighteen pounds of clear fluid, in addition to the large quantity that had been extracted from the anterior cyst. The complaint was of only about a year's standing, but from their great size, these two cysts had so much injured the patient's constitution, that although he was relieved by the operation, his strength quickly failed.

It is not impossible that the cyst may sometimes be ruptured spontaneously, and a cure effected by the absorption of the fluid from the peritoneal cavity. The further effect of these tumours will be the production of sickness and indigestion by pressure upon the stomach, hydrothorax, ascites, and anasarca of the legs from pressure upon the great veins, and a fatal disturbance of the general health.

A knowledge of the symptoms of this disease, Mr. H. thinks, and of its consequences upon the neighboring organs, would in general enable a careful observer to ascertain the nature of the tumour, and to adopt the only means, which would be likely to relieve the patient from the pressure of the tumour. A case is however related by Dr. Todd, (Dublin Hospital reports) in which a tumour in the right hypochondriac and epigastric region of a girl of 14, extending even below the umbilicus, which evidently fluctuated to the right of the linea alba below the ensiform cartilage, was treated as an abscess, and opened, when two quarts of viscid bile were discharged. The girl died next day, when the tumour was found to have been formed by a singular distention of the gall bladder and biliary ducts.

With respect to *hydatid encysted tumours;* the hydatid generated in the human body is commonly a mere globular bag, consisting of two coats, enclosing a watery or mucilaginous fluid, and if pressed out of a tumour entire, has been seen to contract, so as to alter its figure, and if broken will roll up in a manner very different to what takes place from the mere mechanical contractility of an elastic dead membrane. Much looseness of expression regarding hydatids prevails even among medical authors of reputation.

The cyst, in which the hydatids in the liver are enclosed, varies in its thickness and texture, like that of the aqueous tumour, being sometimes thin and transparent, sometimes thick and firm, and at other times, in part converted into cartilaginous or osseous matter. The fluid which is secreted by the cyst of the hydatid tumour differs in different cases, being sometimes thin and watery and nearly colourless, and not coagulable by heat, more frequently mucilaginous, and of a yellow or greenish colour. The number and appearance of the hydatids themselves will be found to vary very much. Sometimes there is a single large hydatid almost in contact with a thin cyst, with scarcely any secretion between its coats and the cyst itself. At other times there is a large quantity of thin fluid, in which a few globular hydatids, seldom larger than a small walnut, are seen floating, or a great number of smaller hydatids, with thick mucilage only between them of a dark colour. Wherever hydatids are situated, little suffering is experienced, except from the bulk of the tumour, as long as there is no great inflammation, and even then provided an exit is afforded by the natural passages, ulceration, or by surgical operation, little danger need be apprehended, except in the important internal organs; and even in them the occurrence of hydatids is by no means to be regarded as invariably fatal, still less are hydatids to be considered as an evidence of malignant disease. But if there is *no* exit for the discharge of the hydatids, and especially if there take place inflammation of the cyst, a *small* tumour becomes dangerous, and frequently fatal. In the brain, for instance, they will necessarily be fatal at an early period. So also in the liver the peculiar situation of the tumours may render them fatal at an earlier period than they would otherwise have been.

Case.—A young man in St. George's Hospital, under the care of Dr. Young, who had for some time expectorated bile, while none whatever seemed to enter the intestinal canal died, and it was found that the common biliary duct was completely obstructed by a

hydatid just at its entrance into the duodenum. A considerable cavity was also found in the right lobe of the liver, communicating freely with a still larger one in the lung, the whole being full of bile and pus with hydatids of various sizes, all however empty and flaccid except a very few.

The means of diagnosis afforded by manual examination is not very satisfactory in the hydatid encysted tumour, unless the proportion of fluid is considerable, though sometimes the sense of fluctuation is very distinct. In general, however, the fluctuation is less evident, so as to render it more difficult to distinguish the tumour from a solid enlargement of the liver, except by the negative signs, which arise from the absence of those other symptoms which ought to characterise a structural change of a decided character. When the existence of fluid is perceptible there arises the further question, whether the fluid is formed by a chronic abscess or by hydatids. In the uninflamed state of the hydatid encysted tumour, the question can generally be answered by the difference in the preceding history, and the absence of the usual signs of such inflammation of this organ, as could have produced an abscess, and by the non-occurrence of rigors and perspiration, and other symptoms of the formation of matter. Sometimes, when the fluctuation is indistinct, the hydatid tumour may be distinguished from enlargement of the liver by a degree of irregularity in the tumour, perceptible through the abdominal parietes, giving to a certain extent the feeling of there being several tumours more or less separate from each other. Cases will sometimes occur, which would baffle the most acute observer from their singular combinations.

Case.—A boy received a blow upon the right side, followed by a tumour some weeks afterwards, which carried him off ultimately. He was tapped two days before he died, and twelve pints of greenish water evacuated, but the upper part of the abdomen was not diminished by the loss. The liver was not much larger than natural; but contained many hydatids, not enclosed in a cyst, but set loose in the substance of the organ. The gall bladder was enormously distended, so as to contain eight pounds of bile enclosed in several concentric bags formed by successive layers of lymph, and the duct was large and full of calculi. In addition to this immense tumour of bile, the spleen, which was healthy in structure, had attached to it an aqueous encysted tumour, containing six pounds of water not coagulable by heat.

Is an hydatid encysted tumour, in an *uninflamed state* to be opened so as to evacuate its contents, in order to prevent further consequences? This is an operation which has sometimes, but not often, been done, and occasionally with success; but it is probable that more severe inflammation would generally take place than from opening an aqueous encysted tumour, the tumour itself being more disposed to inflame, and a larger opening, with probably more violence, being sometimes necessary than for the evacuation of simple water. Mr. H. would not therefore be disposed to perform the operation, unless the tumour was of considerable size, and produced much inconvenience or irritation; but rather to wait till it became from these circumstances or from suppuration, more decidedly necessary. There is in this disease the same danger of rupture of the cyst, as with the aqueous encysted tumour.

Case.—A young girl had a tumour evidently situated in the liver, but its nature was not clear. One day in consequence of exertion, she suddenly felt an acute pain, the tumour disappeared, but the lower part of the abdomen became tumified. Mr. Roux made an incision, which gave vent to a transparent straw-coloured fluid, in which a great number of hydatids were floating. The patient died soon afterwards, and on opening the abdomen, many more were found in the cavity of the peritoneum, and in the liver was an enormous cyst which had been ruptured.

Case.—A woman was admitted into St. George's Hospital under the care of Dr. Hewett, with a tumour apparently attached to the liver, and containing fluid. The patient, however, had such a modification of the usual symptoms of abscess, that Dr. H. believed the tumour contained hydatids. She was kept quiet a short time with the view of procuring adhesion of the suppurating part to the abdominal muscles, after which it was punctured with a trocar by the late Mr. Roux. There was discharged through the canula, a wash-hand-bason full of broken down hydatids mixed with thick yellowish green watery pus. The woman, however, experienced only temporary relief, and died shortly afterwards.

Sometimes, however, the tumour itself bursts externally, and the patients now and then have got well. Next to the formation of an external opening on the surface of the abdomen, the establishment of a communication between the cyst and the interior of the colon, is the most favorable circumstance when suppuration occurs.

Case.—A gentleman had constant pain in the epigastrium and other symptoms of dyspepsia, the cause of which was not apparent for several years, at the expiration of which time his health was so much impaired that he was exceedingly emaciated, and his life was despaired of. He suddenly felt after an exertion, an inclination to evacuate the contents of the bowels, and began to discharge an immense quantity of watery fluid, with what he termed portions of flesh, but which

proved to be hydatids—one vessel after another was thus filled, till it was supposed that near two gallons must have been discharged. After this his health was restored, and he still remains well—several years having now elapsed.

Mr. Hawkins concludes, that the tumour in this case ulcerated into the *colon*, from the hydatids being discharged only by stool; but the cavity will sometimes communicate with the *duodenum*, in which case an additional symptom occurs, the hydatid being *vomited*, as well as got rid of by the bowels, which circumstance is, probably, attended with greater danger, than if the tumour merely ulcerates into the lower and less important part of the alimentary canal. Instead of ulcerating into the intestinal canal, an hydatid encysted tumour of the liver sometimes makes its way through the diaphragm into the lungs, and the hydatids are discharged by coughing.

The cure of these tumours must be conducted on those general principles only, which guide us in other diseases; and on each case as particular symptoms arise, these must be combated. Medical treatment can only be directed to the palliating of the symptoms successively produced by the growth of the tumour, or by its own efforts to effect a cure. As extirpation is out of the question, the only effectual cure consists of the Surgical means by which the obliteration of the cyst can be effected, i. e. by causing adhesion of the parietes of the cyst by lymph, with or without suppuration; and sometimes also by granulation, or by the destruction of the cyst, all of which methods are employed for the cure or removal of encysted tumours of the same kind in other parts of the body.

With regard to the treatment of aqueous encysted tumours, the best method of proceeding when they contain water, or water with a little serum or lymph; i. e. when they are nearly uninflamed, and the cysts are thin and membranous, is to puncture them with a trocar, taking care that no undue pressure is employed, which might induce too much inflammation, and that moderate pressure is continued during the whole time the fluid continues to flow, as well as when the canula is withdrawn, so that no air can enter the sore. If therefore, the contraction of the abdominal muscles and diaphragm does not empty the cyst readily, the use of a cupping-glass over the canula, is a better method of proceeding, than using undue force with the hands. If suppuration has taken place the abscess may be punctured with the trocar.

Case of Aqueous encysted tumour of the kidney, with a supernumerary gland attached to it, by Cæsar Hawkins, Esq.—John Connell, Æt. 6, was admitted 18th October 1832, into St. George's Hospital, with enlargement of the abdomen. It appeared by his mother's account that three weeks previous to admission he had been struck down, and perhaps run over by a carriage, which produced great pain in the abdomen, with considerable swelling. The swelling almost subsided four or five days afterwards, when the bowels were with great difficulty acted upon. Ten days after the injury a swelling again slowly appeared without much pain, but which was now confined to the right side of the abdomen, instead of being general. On admission into Hospital the whole abdomen seemed large and distended, but especially the right side, which was tense and firm, and occupied by a tumour which extended from the right hypochondrium to the right iliac region, and from the back of the loins to a little beyond the linea alba, the ribs and ensiform cartilage being considerably pushed upwards by the bulk of the swelling. The intestines were pushed across to the left side. The tumour evidently contained fluid and did not seem to be very painful. Pulse rather quick and feeble. Bowels constipated, urine passed freely, and healthy in quality.

What then was the nature of this tumour? Was it an abscess in the iliac fossa and among the abdominal muscles, produced by the blow? or was it a deposition of serum and lymph, or of pus in the peritoneum? This seemed the probable case. Castor oil was ordered every other morning, a grain of calomel three times; and the application of leeches occasionally. Towards the end of November a marked change for the worse took place. There was sickness with great pain and tenderness of the whole abdomen, and the countenance assumed an expression of great suffering. Twelve leeches were applied—on the 1st December in the morning; and in the middle of the day, a small puncture was made into the tumour on the right side through the abdominal muscles, by which 18 oz. of clear fluid escaped. It evaporated almost entirely, leaving a small residuum of muco-extractive matter, without any trace of albumen. The evacuation of this fluid afforded very great relief, but the views of the medical attendants, on the nature of the disease were materially changed. It seemed evident upon consideration of the nature of the fluid that it had not been formed by the peritoneum, but was contained in a cyst. Was it then *aqueous encysted tumour* of the liver? or of the kidney? or was the fluid contained in a cyst connected with fungus hœmatodes of the kidney? the latter opinion became in a short time the general one. The symptoms rapidly became worse—the pain as well as the size of the tumour increased,

and the child lingered in a state of great suffering till December 25, when he died.

On examination after death the tumour was found to consist of a single cyst, containing about five pints of fluid, the greater part of which was clear. The remainder contained a good deal of white semi-purulent matter. The cyst had protruded slightly below Poupart's ligament, through the femoral ring, and reached upwards to the liver, raising the ribs, and pushing the liver towards the left side into the chest. It in short occupied the whole of the right half of the abdomen and iliac fossa, and encroached a little upon the pelvis, being external to the peritoneum. The kidney was of the usual size and healthy, and its anterior surface formed as it were a part of the cyst, as the cyst was intimately connected with the margins of the organ, and could not be traced over its surface; and the surface of the kidney, which was thus seen in the interior of the cyst, was flattened and rough, and the covering thicker than usual. About five inches from the kidney towards the inner part of the cyst was a small body, about the size of a walnut, which projected into the cyst, and was soft and lacerable, and covered by a very thin coat. This body proved on examination to be a *third kidney*, consisting of a single lobe, with the cortical and tubular part perfect, and having a single mammillary process, and calyx, but no excretory duct could be traced. All the other viscera were healthy. On the whole Mr. H. comes to the conclusion, that the cyst was an *aqueous encysted tumour* of the kidney, similar to those he describes as enlarging so greatly in the liver.

An account of two cases of deep seated Nævus or vascular tumour of large size, treated by the introduction of setons, by George Macilwain, Surgeon to the Finsbury Dispensary, &c.—In August 1829, Mr. Macilwain was requested, in consultation, to visit a child three months old, who had a small tumour on the left side of the neck, a little below the angle of the jaw. About three weeks after birth, it appeared of the size of a pea, the tumour however had gradually acquired the size of a walnut. It was soft and elastic, with a smooth feel and easily compressible, and was neither tender nor painful. Mr. M. merely recommended a linseed meal poultice, with attention to the general health. After an interval of a fortnight the character of the tumour remained unchanged. The poultices were discontinued and soap plaster only applied—which however, after six weeks trial, was discontinued. The tumour had now increased in size, and a faint but unequivocal pulsation became observable in it. Vascular ramifications were perceptible on it, and when the child cried an impulse was communicated to the tumour. These circumstances confirmed Mr. M.'s suspicion that it was a deep seated nævus, or vascular tumour. At first it was supposed to be glandular. The application of cold at first sensibly diminished the tumour, but afterwards the ice appeared to provoke a reaction, followed by an augmentation of its volume.

As the tumour had now rapidly acquired a considerable size, and appeared still to be increasing, it became a question what further was to be done? Was its removal by operation practicable? Was it justifiable to tie the common carotid artery? Or, as in Mr. M.'s opinion the replies to these questions must be negative, what other plan ought to be adopted? He requested a consultation with Mr. Stanley, &c. These gentlemen coinciding with him as to the hopeless nature of either of the operations mentioned; it was agreed to endeavour to excite inflammation in the tumour, and red hot needles were passed into its substance. This was repeated thrice at intervals of about a week, each puncture was followed by a single jet of arterial blood, and produced considerable constitutional disturbance which continued for about 24 hours, but they were followed by no diminution of the tumour, which on the contrary increased slowly but progressively. It was now determined that a seton should be passed through it, the following being the extent occupied by the disease. It reached above as high as the lobulus of the ear, which with the contiguous portion of the auricle it had considerably elevated from its usual situation. It extended below to within half an inch of the clavicle, forwards it occupied the cheek as far as the anterior edge of the masseter muscle, and posteriorly it reached to within about half an inch of the mastoid process. A considerable plexus of vessels had become developed on its surface, and towards the ear especially there was deepish redness of surface, showing that the tumour was exceedingly vascular.

On the 5th December 1829, Mr. Macilwain passed a long circular needle, armed with two double threads of silk, through the substance of the tumour, from one side of its circumference at its base to the opposite; having adjusted the silk so that it should as nearly as possible occupy the space described by the transit of the needle. The structure seemed to yield before the instrument, but still to resist its puncture, so that he had the greatest possible difficulty in carrying its point through the mass, the needle bending so as to endanger its breaking, and yet by the sensation it

imparted, it appeared to be pressing against a soft elastic matter. One jet of arterial blood followed the seton. Considerable constitutional disturbance set in which did not subside for several days: the tumour increased very rapidly, a memorandum made by the father describes it thus; "it increased to such a size that when the child sat upright, it touched her shoulder; those small vessels which were ramifying at the centre of the tumour were now of such frightful size that when the child cried violently they projected from the surface sufficient to cast a shadow.

On the 30th December, a second seton was passed, which like the former, produced considerable disturbance, and like it was carried through the tumour with great difficulty. The tumour at this time had acquired its greatest magnitude. No discharge except a very small serous-like exudation had taken place hitherto, nor was any thing more observable until about a fortnight after the insertion of the second seton. Shortly, however, well formed pus followed. For a considerable time the setons discharged matter alternately and subsequently both together. The tumour gradually, but very slowly diminished in bulk until May 1832—when the setons were both thrown off in one night, there remaining nothing more than a slight discolouration of the skin and the cicatrices of the setons.

With respect to the second case, the subject was a child of the same age as the above, and the situation of the tumour, its size, character, and history were very similar to those of the first case. In November of 1830 he passed one seton through the tumour precisely as in the former case. The excitement produced by it was much less considerable, the diminution of the tumour too is much more rapid. *(The history of the case not concluded.)* In future Mr. M. means to employ a needle a size or two larger, since there will be no danger of its breaking. He inculcates the propriety in the present state of our knowledge on this subject of being careful to adjust the quantity of the silk, so that it should fully occupy the track made by the needle.

The next paper in the volume (from the pen of Dr. Elliotson) is on *glanders in the human subject.* As the theme is one of deep and painful interest, we have given the paper entire among our selections. A perusal of it will, we should imagine, put an end to all doubt respecting a fact, which ought to be made generally known that this frightful disease is communicable to man from the horse. In the original there is a plate which gives a vividly terrible idea of the disorder in the human subject.

On the ulcerative process in joints, by C. Aston Key, Esq. Surgeon to Guy's Hospital.—The ulcerative process is doubtless regulated by laws, as fixed and certain as every other proceeding in the animal economy. The remarkable disposition to ulceration in those textures, that are well supplied with blood must be obvious if not familiar to us all. In the mucous membranes it is especially observable. There are circumstances connected with this disposition to ulceration, that tend to throw some doubt on the received opinion, that the absorbents perform the office of removing parts that are under the influence of ulceration—and to refer some share, if not the whole, of this action to the veins. It is by no means satisfactorily ascertained what part the veins and the absorbents respectively take in healthy or nutritive absorption. In the absorption produced by disease, the nature of the process is still less definitely understood; and it remains a problem for the physiologist to solve, whether the veins are not mainly engaged, or at least assist, the absorbents, in the process of ulceration. The mucous membranes abound in vessels of large size, and are liable, under a moderate degree of inflammation, to pass into the ulcerative state. The mucous lining of the intestine quickly ulcerates under some forms of muco-enteritis; the lining membrane of the mouth speedily exhibits apthous, or even a deeper extent of ulceration from trivial causes of inflammation. These examples favour the above supposition; which is further strengthened by the fact, that all structures previously to being removed by ulceration become unusually vascular. In structures that present a less developed vascular tissue, the disposition to ulcerate under inflammation appears to be less determined than in the mucous textures. The serous membranes rarely afford evidence of ulceration on their exhaling surface. The fibrous textures of the body, it is well known, exhibit a remarkable indisposition to ulceration; the length of time required for the separation of a dead portion of tendon, or for the pointing of a subfacial abscess, sufficiently evinces this. The long resistance which the intervertebral cartilage offers to the absorbent action caused by the pressure of an aneurismal sac, affords another example; the bones and the investing ligaments of the spinal column are frequently eroded to a considerable extent, while the fibro-cartilaginous structure often exhibits not any signs of incipient ulceration. When a bone becomes necrotic, the dead bone having no power of self-removal, the surrounding living parts are called upon to perform the office of removing the useless and offending mass; for this purpose the inner layer of

the new structure which is to supply the place of the old, is furnished with an organization capable of effecting its removal; it becomes extremely vascular, resembling those structures, namely, the villous, which are known to possess, in a remarkable degree, the ulcerative disposition. In a manner analogous, in many respects, to the process of the removal of dead bone, does nature achieve the task of absorbing the cartilaginous structure covering the articular extremities of bones. These structures present but a low degree of organization, they exhibit scarcely any trace of red blood-vessels. Under disease they exhibit that want of action which might be anticipated from the limited extent of their organization. In acute inflammation of a joint, while the synovial membrane and the ligaments are much altered, the cartilage appears unchanged in colour or in texture.

The progress of ulceration in cartilage covering the ends of bones, is not uniform in its cause. The means by which it is affected vary according to the causes that gave rise to it. It is sometimes the result of acute synovial inflammation, or of a chronic affection of that membrane. It is occasionally found as a primary affection independent of the other textures of the joint; or it may be the result of disease commencing in the subjacent bone and extending to the under surface of the cartilage. There are four modes in which the removal of cartilage by ulceration takes place. The first and most common form is that in which it occurs as a consequence of inflammation in the synovial membrane. The history of a considerable number of cases of diseased joint has satisfactorily proved to Mr. Key the existence of a long continued synovial affection, before any alteration of the cartilaginous surface could have taken place. It is not uncommon to find the extremity of one bone extensively ulcerated, especially in the knee joint, while the other may exhibit the same disease in an incipient state, and thus shew the course which the diseased action has taken. The tibia is not unfrequently seen wholly deprived of its cartilage, and one or both semilunar cartilages destroyed, while the cartilage of the femur is partially denuded, and that of the patella sound, with the exception of its margin, which has evidently suffered in texture from its continuity with the altered synovial membrane.

The inflammation of the synovial membrane, that leads to ulceration of cartilage in the ordinary strumous affection of joints in the adult, is not, according to Mr. Key's observation, of the most acute kind. This form is in most cases readily controlled by remedies; the less acute form assuming various shades of activity between the chronic, and the acute rarely occurs for any great length of time without the cartilage participating in the mischief.

The knee joint is most frequently observed to suffer disorganization from this form of inflammation. When taken in the early stage, the subacute inflammation of the membrane readily yields to a judicious administration of mercurial remedies, combined with moderate depletion, and remedies that allay that excessive irritability of the system, that generally attends inflammation of the synovial membrane in delicate persons. The nature of the remedies employed always leaves the patient in a state of weakness and irritability, under which the low degree of action that remains in the joint will be disposed to assume the ulcerative form. It is in this state that the compound preparations of sarsaparilla with alkalis are of so much benefit.

In the chronic form of synovial inflammation, that occurs in indolent habits of a strumous tendency, especially persons below the age of puberty, years often elapse before the ulcerative process is completed. The symptoms are proportionally mild in their course.

The first circumstance that strikes us on opening a diseased joint is, the different degrees of ulceration in the articular surfaces, and the different extent to which the interarticular cartilage and ligaments have suffered. This will depend upon the part in which the diseased action has commenced, which perhaps is in most cases determined by accident, as the seat of the blow or sprain which may have excited the inflammation, or the form of the joint producing unequal bearing upon the surfaces. The ulcerated surface sometimes exhibits parallel vascular lines verging towards the centre, and having their origin from the synovial membrane; which at this part, if the vessels are well filled with fine injection, appears highly vascular, and fringed or villous like a mucous membrane. The increased vascularity is particularly noticeable at the edge of the membrane, and in those portions of the fringed margin that correspond to the ulcerated surface of the cartilage. This highly vascular fringe of membrane, is a newly organized, and will be found in some parts to be a superadded structure, for the purpose of producing ulceration of the contiguous cartilage. This membrane may be readily seen either partially developed or completely formed on the cartilaginous surface in the examination of diseased joints. The process by which the ulcera-

tion of cartilage is thus effected, is analogous to that by which the scquestrum of the cylindrical bones under necrosis takes place.

The formation of the vascular membrane frequently takes place without suppuration, as may be seen in strumuous joints that have been the subject of chronic inflammation for years, without abscess having formed. Such joints are sometimes seized with an acute attack of inflammation of that part which had been previously healthy; suppuration rapidly ensues, under which the failing of the patient's health and powers, demand amputation of the limb for the preservation of life. From careful observation of a large number of cases, Mr. Key is of opinion that the ulcerative and anchylosing process may be going on for many years. The destruction of the semilunar cartilages in its process resembles that of the intervertebral substance of the spine. It is preceded by inflammation of the contiguous synovial membrane, which is followed by a softening of the cartilage. The first symptom of the affection is pain about the head of the tibia and each side of the ligamentum patellæ, with effusion about this part of the joint. The hip joint is less frequently the subject of acute than of chronic inflammation, and is uniformly attended with ulceration of the cartilage. The action is propagated from the ligament to the cartilage, and ulceration of the latter is consequent upon inflammation of the former. The beginning of the affection is frequently to be traced to a fall by which the legs have been forcibly separated, and the ligamentum teres stretched.

There is a disease about the tarsus, the commencement and progress of which resembles, in many points, that of the hip joint. It is usually considered as a disease of the ancle joint itself; but it has its origin in the articulation of the under surface of the astragalus with the os calcis. The inflammation is slow in its progress, and when fairly established in the joint of a strumous subject, rarely fails to end in destruction of its cartilage, and of the interarticular ligament connecting these bones together. It is usually attributed to a sprain, or twist of the foot sideways. Very early in the disease, the least stretch of the ligament causes acute pain, and examination of the joint, where the opportunity offers, also proves it to be inflamed and thickened, and often extensively disorganized.

The *second* mode in which nature affects the ulceration of cartilage, without the agency of its own vessels, may be seen in the rapid process of disorganization that follows a wound into a joint. In a joint advanced to a certain extent in disease, the only mode of arresting it or of repairing the mischief occasioned by the inflammation, consists in the production of anchylosis. To this end the removal of the cartilage is an essential step; and it would appear that the office of removing devolves on the inflamed-synovial membrane. The process exhibits the closest analogy to that by which nature removes dead bones; the same inactivity or passive condition of the parts absorbed; the same suppurative action from the vascular granulation; and a similar degree of vascularity bestowed upon the newly organized structure, which has to perform the office of absorption.

The third mode is by the degeneration of the cartilage of a joint into a fibrous structure. Mr. Key has had but few opportunities of verifying by dissection, the existence of this disease. Mr. Brodie has described it, and appears to regard it as not an uncommon occurrence. The change in the cartilage is analogous to that which the intervertebral substance undergoes under scrofulous action.

The last form in which the ulceration of cartilage takes place, is that which commences on the surface of the cartilage attached to the bone. In this disease (says Mr. Brodie,) the cancellous structure of the bones is the part primarily affected; in consequence of which ulceration takes place in the cartilage covering their articular surfaces.

There are two forms of disease in the bone, under which this secondary absorption of cartilage takes place, the one is of a chronic nature; the other assumes an acute form; but in the process of ulceration the same passive condition of the cartilage may be observed, as in that which commences within the cavity of the joint. The chronic form is that in which a strumous action takes place in the cancellated structure, which becomes preter-naturally vascular, and contains a less than usual quantity of earthy matter; at first a transparent fluid, and afterwards a yellow cheesy substance is deposited in the cancelli. The bones in which Mr. Key has observed this form of disease, are the small bones of the carpus and the extremity of the femur; and more frequently, the head of the tibia and the bones of the tarsus. Persons of all ages are liable to it.

The acute form differs from the former in the comparative suddenness of the attack, as well as in the appearance which the bone presents. The former is like all strumous affections, slow in its progress, and at first

marked by little or no pain in the part. But in the acute disease attacking the spongy bones, the pain is often severe in the beginning, the limb at that part tender when pressed, and the constitution a good deal disturbed. A few weeks only elapse before the joint exhibits symptoms of participating in the mischief. From this time the disease makes rapid progress; if suppuration takes place in the cavity of the joint, the synovial membrane ulcerates, and allows the matter to burrow between the muscles of the limb; fistulous openings at length form, and tend in some measure to abate the patient's sufferings. The effect, however, upon the constitution is such, that amputation is usually resorted to for the preservation of life.

On examination, the substance of the bone retains its firmness of texture, and when cut through shows no signs of disease except at one part of the cancelli. There a cavity is found containing one or more portions of detached bone surrounded with pus; this cavity is found to communicate with the joint by a fistulous opening of small size. The cartilage covering the bone is extensively ulcerated in some parts. The process of ulceration evidently begins on the outside of the joint. This form of disease is in its nature analogous to necrosis of the cylindrical bones.

History of a case of Medullary Sarcoma, by George Langstaff, Esq.—The patient was a woman 38 years of age, who had borne eleven children, and had enjoyed a good state of health until within the last two years of her life, when symptoms denoting a morbid condition of the liver began to show themselves, accompanied with a disordered state of the digestive organs. The symptoms soon assumed a more alarming aspect; great pain was experienced in the region of the liver, (which increased in size) in the right shoulder and the loins. During the four months which preceded the patient's death, her health declined rapidly, and she became greatly emaciated, without, however, exhibiting signs of ascites, œdema, or jaundice. The catamenia having ceased during this time, she imagined herself pregnant. On examining the abdomen, it was found enlarged to the size which it assumes at the full period of utero-gestation, and the parietes being very thin it was ascertained that the liver abounded with tubera, which were concluded to be of a fungoid or medullary kind. Slight pressure on the abdomen, was productive of great pain. There was pain in the region of the kidney, and an offensive puriform fluid had passed for some time with the urine. On examining the pubic region no enlargement of the uterus indicative of pregnancy could be detected. During the fortnight preceding her death, her bodily powers gradually sunk. About 12 hours prior to dissolution uterine hœmorrhage commenced, which was succeeded by the expulsion of a fœtus of the 3d or 4th month of utero-gestation, and which was in a putrid condition; the placenta not expelled.

In the post mortem examination, on opening the abdomen, the liver appeared to occupy the principal part of this cavity, and strong adhesion by organized lymph, firmly united the serous investment of the convex surface of this viscus to the peritoneum covering the anterior part of the abdomen. Nearly the whole of the liver had been superseded by the production of medullary and fungoid tubera, which projected considerably from the external surface of the organ, and many of which had acquired the magnitude of a moderate sized orange. Sections of the liver showed the tubera to be contained in dense and highly vascular cysts. The portions which retained their natural structure were of a pale white colour, with scarcely any signs of vascularity, or appearance of biliary ducts, which induced Mr. L. to suspect that the secretion of bile had been suspended for some time; a circumstance which might account for the absence of jaundice. The gall bladder contained a small quantity of a viscid dark coloured secretion. In the substance of the pancreas there were three moderate sized tumours and several minute ones of a scirrhous structure. The spleen was natural. In the right kidney were found medullary and fungoid tubera. The uterus was healthy. The ovaries were enlarged and their structure destroyed by scirrhous and fungoid tubera. The fallopian tubes were pervious.

Mr. Stanley's *case of fracture of the neck of the femur within the capsule, and its bony union,* will be found among our selections.

On irritation of the spinal cord and its nerves, in connection with disease of the kidneys, by Edward Stanley, Esq. Assistant Surgeon St. Bartholomew's Hospital.—Mr. S. relates cases of disease in the kidney existing in connexion with tenderness of the spine and paralysis of the lower limbs, which were in consequence treated as cases of disease in the fibro-cartilages and bodies of the vertebræ. The first of these cases to which his attention was directed, occurred in the year 1818 in a man admitted into St. Bartholomew's Hospital, on account of paraplegia, combined

with retention of urine. Both sensation and the power of motion were entirely lost in the lower limbs, on examining the spine, tenderness on pressure was discovered at the third lumbar vertebra, which viewed in connexion with the other symptoms, was considered to indicate the existence of disease in the vertebræ. He gradually sunk. On a careful examination of the body, no disease could be discovered in the containing or contained parts of the vertebral column. All were sound, as were also the brain and its membranes. In one kidney were numerous small abscesses. The other kidney was gorged with blood, and its substance much softer than usual. The mucous lining of the ureters and of the bladder was very vascular, and the muscular coat of the bladder was thickened. Three other cases similar in symptoms and in post mortem appearances are given by Mr. S. Reflection on these and other cases arising under the observation of professional friends leads Mr. Stanley to suppose that the disease began in the kidneys, and communicated an impression to the spinal cord and nerves issuing from it. It appears too that irritation commencing in the spinal cord is communicated to the kidneys—and that these organs re-act on each other.

It has been observed in the different orders of animals, that the complexity of the sympathetic nerve is proportionate to the development of the spinal cord, hence the opinion, that the ganglia of the sympathetic, as it were, having their roots in the spinal cord, derive from it whatever influence they communicate to the parts upon which the nerves issuing from these ganglia are distributed. The lumbar ganglia of the sympathetic communicate freely with the spinal nerves, and from these ganglia, nerves issue to the renal plexus. From this arrangement of nerves, an explanation may be derived of the influence of the spinal cord upon the functions of the kidney; still more closely can we trace the influence of the spinal cord upon the bladder, rectum, and uterus, through the nerves which these organs receive directly from the sacral plexus of spinal nerves.

In the work of Ollivier on the spinal cord, an experiment by M. Krimer is quoted to prove the direct influence of the spinal cord on the functions of the kidney. It consisted in dividing the spinal cord,* in its dorsal or lumbar portion, or in completely destroying either of these portions of the cord, and in either case, very remarkable changes immediately followed in the qualities of the urine. It became colourless, and loaded with saline and acid principles, no such effects resulting from injury to the cerebrum, or cerebellum. Dr. Prout, in his work on diseases of the urinary organs, has noticed the effect of irritation of the spinal cord on the functions of the kidney, by referring to the old opinion, that injuries of the back produce alkalescent urine, and adding, as the result of his own experience, that in a large porportion of cases, the deposition of the earthy phosphates from the urine has been distinctly traced to some such injury as a violent concussion of the spine occasioned by a fall from a horse. It has been considered, that in cases of injury to the spine, the urine becomes rapidly decomposed in the bladder, because this organ has lost its nervous power, but from observations recently made by Mr. Smith, of St. Mary's Cray, Kent, it would appear that the urine is ammoniacal before it passes into the bladder, from defective action of the kidney, consequent on the irritation of the spinal cord. Irritable uterus, irritable bladder, are dependent in some instances on irritation of the spinal nerves.

On malignant tumours, connected with the heart and lungs, by John Sims, M. D., Physician to the St. Mary-le-bone Infirmary.—The two first cases described by Dr. Sims, belong to the class of malignant diseases, whose varieties have obtained the names of fungus hæmatodes, medullary sarcoma, soft cancer, &c. In the one case, that of a young woman, aged 23—there had been great difficulty of breathing, pain in the chest, and frequent cough during life, supposed to indicate a mere inflammatory affection of the lungs, for which the usual remedies were had recourse to, but without effect. Shortly after, a new symptom set in, viz. phelgmasia dolens of the right arm. After death a malignant tumour of very considerable size was found imbedded in the right lung; it was closely attached to the great vessels at the base of the heart. Its colour on being cut into was dirty white, intermixed with streaks of lead colour. The cavity of the peritoneum contained several pints of fluid. There were several very large tumours attached to the uterus and its appendages, some of them of the size of a large orange. They were soft and similar in texture to the tumour found in the lung.

The other case was that of a man of strong appearance, a baker, aged 43. He suffered much from hœmoptysis and impeded respiration. He gradually became worse, and at length sunk after many months of suffering. A great proportion of the right lung was after death found hepatised. A malignant tumour was found extensively attached to the right lung, and penetrating the left auricle of the heart.

* Of what animal not mentioned.

SELECTIONS.

CASE OF ŒSOPHAGOTOMY,

With remarks, by James M. Arnott, Surgeon to the Middlesex Hospital. Read March 12th, 1833.

Incision of the œsophagus for the removal of a foreign body is an operation which has been rarely performed. It is stated to have been twice executed in France about a century ago, and once again lately, but I can find no record of its having been done in England. The three cases which occurred on the continent have not been related by the operators, but are mentioned by others who did not possess the advantage of witnessing them; the references are brief and incomplete.

The following details of a case in which recently I had occasion to perform this operation may therefore not be without interest, and I venture to add a few remarks on what appear to me to be the chief points of importance as regards œsophagotomy.

On the afternoon of the 22d of December, I was sent for to the Middlesex Hospital, to see a boy two years and a quarter old, who had been brought as an out patient, and was stated to have a piece of bone in his throat which could not be extracted. His father informed me that six days previously, the child had "swallowed" a portion of the thick end of a rib of mutton, and that he had since been unable to get any thing down but fluids,—in other respects he seemed to suffer little,—attempts had been made to remove the bone.

On introducing the finger to the utmost extent, deep below the entrance of the glottis and on the right side, a piece of bone could just be touched projecting upwards. I endeavoured to unfix it, but it was too low. Gullet forceps and Weiss's urethra forceps were tried, but could not be applied so as to seize it. A hook attached to a piece of whalebone, and another of strong wire were ineffectually endeavoured to be passed beyond it. An emetic was given which was followed by severe straining, (vomiting did not take place, probably from there being nothing in the stomach:) but the position of the bone was unaltered. Lastly, I applied gentle pressure with the tip of the finger on its point, but it did not undergo the least displacement.

Foiled in my endeavours to remove the bone, I desired the child to be received into the hospital, that I might have the benefit of a consultation upon the expediency of extracting it by incision of the œsophagus, but the father declined leaving him. There were no urgent symptoms, and some hope was entertained that the bone might become loosened and be expelled upwards, or that it might gradually slip downwards. The usual means were adopted for preventing inflammation, and the father was enjoined to bring the child immediately to the hospital, should any distressing symptom supervene.

For a fortnight, no additional suffering was experienced, but emaciation took place; and on the child being brought to the hospital on the 16th of January, I felt the bone in the same situation as before, and again attempted its extraction. After some delay, caused by the irregular attendance of the parents, I succeeded in obtaining a consultation, and my colleagues having failed in their endeavours to remove the bone, acceded to the propriety of the operation of œsophagotomy, which was performed on the 21st of January, almost four weeks after the accident. For the last few days, the child's breathing had become occasionally oppressed, and more especially so at night. The bone formed no prominence and could not be discovered externally, nor could either of the gentlemen above alluded to, reach it with the finger. I could, however, still touch it, and as it seemed to be fixed at the termination of the pharynx, or the commencement of the œsophagus, I determined to cut into the tube immediately behind the lower part of the ericoid cartilage.

The child being laid on its back upon a pillow, and the head turned a little to the left, an incision was made on the right side of the neck in the sulcus between the sterno-mastoid muscle on the outer, and the larynx and trachea on the inner side. It was commenced opposite to the upper part of the thyroid cartilage, and carried downwards about an inch and three quarters in length. In the subcutaneous cellular substance two vessels which bled were tied. Beneath the fascia, the omo-hyodeus muscle presented itself, running diagonally across the wound; it was readily pulled to the inner side, and the division of the cellular substance continued: the knife being directed inwards upon the edge of the larynx and trachea, (so as to avoid the carotid artery,) until the outer part of the sterno-thyroid muscle was exposed. The further separation of the parts was effected by the handle of the scalpel and the fingers. Two vessels which resisted the traction on the cellular substance, and ran laterally into the right lobe of the thyroid gland, which now started into view, had a ligature put round them by way of precaution. By means of a blunt hook, the gland was drawn inwards, and the larynx turned a little

round on its axis, but the finger applied behind the lower part of this did not distinguish the bone. A male silver catheter was now introduced by the mouth, and its point made to project through the wound, carrying the dilateable gullet upon it. Into this, a small incision was made, and a pair of polypus forceps being inserted, the blades were expanded, and the wound easily dilated in a perpendicular direction, so as to admit the finger. With this, the bone was felt about half an inch lower down than the aperture, and the forceps being re-inserted it was laid hold of, disengaged, and extracted; and proved to be the spinous process of one of the lower dorsal vertebræ of a sheep.

The child bore the operation well, little blood was lost, and no difficulty was experienced from the motions of the larynx, which I had in some measure apprehended from the disturbance of respiration the preceding night, and some action of the alæ nasi observed immediately previous to the operation. It was, at first contemplated to unite the wound by the first intention, but considering the little probability of this taking place, and anticipating a necessity which subsequently occurred, this was abandoned.

For some hours after the operation, the child's breathing was somewhat interrupted by mucus collecting in the throat, about the entrance of the glottis; but this being expelled, partly by the mouth, and partly by the wound, he had a good night. He had been fed by means of an elastic gum catheter passed through the mouth; but the following morning some difficulty occurred in carrying it down, and as it was judged imprudent to urge it, lest ulceration of the œsophagus had taken place, and pressure might be injuriously applied, it was introduced through the wound, which was easily accomplished, and was the method adhered to. This day was passed tranquilly; but in the course of the second night, the child's breathing was laborious, and on the morning of the succeeding day, was accompanied by wheezing: he was at the same time severely purged. In the afternoon, the difficulty of breathing increased, the countenance became anxious and slightly livid, and death occurred at nine p. m., fifty-six hours subsequent to the operation.

On examination of the body, slight redness was perceived at the under part of the pharynx. There were two points of superficial ulceration, or rather abrasion, in the upper part and on opposite sides of the œsophagus. The opening made in the gullet by the operation was one half in the pharynx, and the other in the œsophagus, or rather, the under half was below the lower margin of the cricoid cartilage. There was no appearance of suppuration between the pharynx and œsophagus, and the anterior surface of the cervical vertebræ. The entrance to the glottis and the cavity of the larynx presented their natural appearance, as well as the upper part of the trachea; but the under part of this tube and the bronchi were inflamed. The right lung, with the exception of its upper part, was hepatized, and portions of it thrown into water, sunk. Sections of it presented a mottled gray appearance and granulated texture, with here and there a drop of yellow matter from the extremity of the bronchial tubes. In a less degree and more partially, hepatization was observed in the left lung.

The occasional necessity for the operation of œsophagotomy has been recognized by most systematic writers on surgery, and they have adduced certain circumstances as conditions justifying its performance. They have stated that when a foreign body cannot be extracted or conveyed into the stomach—when it impedes deglutition, and by pressure on the trachea threatens suffocation,—*if it projects externally*, the operation of œsophagotomy ought to be performed. Now in the case which has been related, deglutition was *not* totally interrupted; there was *no* apprehension of suffocation from pressure on the trachea; the body did *not* project externally, and yet the operation was requisite.—*Med. Chir. Trans. vol.* 18, *part* 1.

CASE OF SLOUGHING ABSCESS,

Connected with the Liver. By Cæsar Hawkins, Esq. Surgeon to St. George's Hospital, and Lecturer on Surgery.—Read 11th December, 1832, and 26th February, 1833.

Case.—William Hollock, æt. 31, was admitted into St. George's Hospital, under the care of Dr. Seymour, December 23rd, 1830, giving the following history of himself.

He said he had lived somewhat intemperately for several years in the East Indies, where he had suffered from liver complaint. About seven weeks before his admission he was seized with pain in the right shoulder, followed in a week by violent pain in the situation of the liver, and about a fortnight after this, he perceived a swelling in the right hypochondrium; he was bled and had leeches applied, and had been salivated by mercury, but without any diminution of the swelling, or mitigation of his sufferings.

The swelling was of an oblong shape, extending across the abdomen above the umbilicus, to the extent of about four inches, and was situated in the epigastrium and under the margin of the ribs on the right side. The tumour appeared to be connected with the liver, and it seemed that some hardness could be felt in that organ on each side of the swelling, which was very tender and painful, and fluctuated obscurely; but there was no redness of the skin, and the abdominal parietes appeared to be moveable over the surface of the tumour. He complained of constant cough, with copious mucous expectoration. He was thin and looked several years older than he really was, and had an expression of great anxiety from intense suffering. His appetite was bad, the pain kept him constantly awake at night, the urine was high coloured, and there was a light yellowness of the skin and of the conjunctivæ, scarcely amounting however to jaundice. The pulse was 80 and feeble, the tongue clean and moist.

I was requested by my colleague to see him, and on the 15th of January, the tumour having become more prominent, and the fluctuation more evident, it was determined that it should be opened. I passed a trocar into the most prominent part of the swelling about two inches from the margin of the ribs towards the umbilicus, which entered the cavity of the supposed abscess at a depth of about three inches. Five or six ounces of fluid were evacuated through the canula at the time, without any pressure, and a good deal of the same fluid continued to escape through a gum catheter, which was left in the puncture. The fluid which was removed, was not like common pus, but thick and adhesive, of a dark, yellowish green colour, and of a peculiar though not offensive odour, and upon being mixed with nitric acid, it appeared to contain biliary matter.

He was much relieved by the operation, the cough being lessened, and his rest better; and his health continued to improve till February 18th, when he had gained a little flesh, the discharge during the whole of this time having continued of the same quality, and in considerable quantity. I had been obliged however, on February 1st, to remove the catheter, and slightly to enlarge the wound, the consequence of which was the admixture of a good deal of fluid blood with the matter, the bleeding appearing to take place from the anterior of the cavity.

At this time, February 18th, the edges of the puncture ulcerated slightly, the skin around became inflamed and very tender, and he suffered a good deal of pain, with increased discharge from the cavity, which continued till the 22nd. A circular projection now took place on the left side of the aperture, as if the matter of the original abscess had not a free exit, or as if another collection of fluid was taking place; I therefore made another puncture with a broad lancet, about two inches and a half from the first, which gave exit to an ounce of the same fluid as before, with a good deal of arterial blood.

He was still more relieved by this than by the former puncture, the discharge became more purulent and diminished in quantity, his health and spirits improved so much that he was able to walk about on the 1st of March, and by the 18th of April, three months from the first opening of the abscess, the cavity seemed nearly filled up, and he expected to leave the Hospital in a short time.

Now, however, what little discharge remained became mixed with a great deal of arterial blood, and the two apertures began to slough, with much redness of the skin; he began again to look thin and pale, with so much depression of strength that several ounces of brandy and an equal quantity of wine daily appeared necessary to prevent his actually sinking; and he fell into a complete state of despondency, expressing his conviction that he was going to die. He suffered at the same time such acute pain, that six grains of acetate of morphia in the day scarcely gave him any rest, his stomach being also irritable, so that he could not take landanum.

On May 3d, the two punctures were joined together in a black sloughing sore, about four inches broad, and two and a half in the short diameter, in the centre of which an aperture still admitted the probe into the original cavity, (which seemed nearly filled up, below the integuments and muscles, the examination being always extremely painful. The black slough in the centre was surrounded by a thick prominent circle of integuments, the edges of which were everted and ragged; and below the edges of the ulcerating and sloughing skin, were projections of unhealthy fungous substance, of a whitish colour; and each of these masses added to the size of the sore, as they were successively destroyed by sloughing. The skin around the ulcer was excoriated by the separation of the cuticle, and a circle of skin, three inches broad, all round the ulcer, was thickened and hard and prominent, and of a dark red colour. The discharge from the central opening, and from the surface of the ulcer was thin, and wholly unmixed with pus, but was accompanied with considerable hœmorr-

hage, and had a very peculiarly nauseous and fœtid smell.

The prominence formed by the integuments and muscles round the ulcer, (which prominence could not be distinguished from the liver,) with the hœmorrhage and peculiar discharge, and the unusual progress and singular appearance of the sloughing sore, (wholly unlike an ordinary gangrenous ulcer, or the sore of hospital gangrene,) suggested to myself, and to many other gentlemen who saw it, the idea of there being a tumour of *Fungus Hæmatodes* in the liver, with which the original abscess had been connected.

The same process continued till June 4th, the sloughing during the whole six weeks having been almost uniformly progressive, but now and then increased pain was observed, with more of the surrounding redness, and of the projecting masses below the edges of the skin, and the sloughing at these times became more rapid. The surface of the sore was now about fourteen inches broad, and ten in its lesser diameter, from above downwards; great masses of dead skin and muscle had been sometimes cut away, but no tumour had made its way outwards, which seemed at one time probable; the sloughing having also not quite destroyed the whole thickness of the abdominal muscles. Nearly the whole of the abdomen and lower part of the chest around the sore was now of a dark red colour, and presented the prominent and hardened appearance before alluded to, but in a less degree than when the ulcer was smaller. He had now become much emaciated, and required much support, but his appetite did not fail, and he seemed chiefly affected by the excessive pain which prevailed to the last. There never was the least attempt to throw off the sloughs, and form granulations, the sloughs being the whole time attached to the living parts.

He died June 11th, worn out by the pain and irritation, about five months after the abscess was first opened.

It is scarcely necessary to mention the variety of local remedies that were employed to check the sloughing: carrot poultice, stale beer poultice, hemlock poultice, solutions of opium and hemlock; stimulants of elemi, turpentine, Fryar's balsam, Peruvian balsam, Barbadoes tar; black wash; solutions of mineral acids and of the chlorides, and concentrated nitric acid. On the whole he seemed to be most relieved for a time by chlorine washes, and by a mixture of conserve of roses with goulard and laudanum, but nothing appeared to have any decided influence in stopping the disease.

On examination after death, it was found that nearly the whole thickness of the abdominal parietes had been destroyed, so that little besides the peritoneum remained, which adhered in part to the corresponding surface of the liver; there was no sign of peritoneal inflammation even close to the sloughs, though so near the membrane. To our great surprise there was no disease whatever of the liver, except slight condensation and granulation, such as is found in persons accustomed to spirits, but this change was by no means well marked. There were no remains of the cavity, which formerly contained the matter, and the only morbid appearance found was slight thickening of the peritoneal covering of the liver, united with that which lines the abdominal muscles; this thickening having taken place to the extent of about an inch, and to the depth of little more than a line, in the centre of which was seen a white substance, looking like a cicatrix, which extended perpendicularly into the liver, to the depth of about half an inch around which, however, the liver seemed as little altered in appearance as in any other part. All the other viscera appeared to be quite healthy.—*Med. Chir. Trans. Vol.* 18, *Part* 1.

ADDITIONAL FACTS

Respecting Glanders in the Human Subject. By John Elliotson, M.D. F.R.S., President of the Society.—Read 12*th March*, 1833.

It is now nearly three years since the Society did me the honour of publishing, in the sixteenth volume of its Transactions, a paper in which I proved that the glanders of the horse is communicable to the human race, and described three cases, two of which occurred in men whom I saw and one in a person well known to me, together with three which I found in recent English works, and three in Rust's Magazin für die gessammte Heilkunde.

The proofs adduced were the perfect similarity and uniformity of the symptoms and course of all the acute cases of the affection, and their complete distinctness from those of any other disease, as well as the perfect correspondence of the appearances, on dissection, in the only case which was properly examined, with those in the horse:—the fact of each of the nine patients having been in communication with a glandered horse, though the occupations of some of them had rendered this extremely improbable;—and the fact of glanders having been produced in asses by the inoculation of matter taken from two of them. At that time it was not generally known,

indeed by many it was disbelieved, that the disease could effect the human subject. In no writer upon contagious or cutaneous diseases was it mentioned. The Dictionnaire de Médecine et Chirurgie Vétérinaires declares glanders to be peculiar to monodactylous animals. Sir Gilbert Blane in his Select Dissertations, published in 1822, asserts that "the only examples hitherto ascertained" of contagions communicable from one species to another "are the hydrophobia and cow pox." Mr. Travers, in whose work on Constitutional Irritation, published in 1828, I found two cases of the disease caught by men from the glandered horse, and whose morbid secretions, when inoculated into asses, again produced the disease in them, considers that the disease of the intermediate beings—the men,—was not glanders. Mr. Colman, who inoculated one of the asses, declares, that, "as far as his experience goes, the nostrils of the human subject are not susceptible of glandered ulceration or inflammation:" and indeed, when I related my cases to Mr. Colman at one of the meetings in the College of Physicians, he appeared to doubt their nature, as he said the symptoms were not those observed in the horse; but I replied, that, in the asses, inoculated from the human being, the symptoms were precisely the same,—discharge from the nose, swellings, pustules, sloughing. Mr. Youatt, although *now*, in the *last* number of the Veterinarian, after seeing the present case, he says "the possibility of the communication of glanders from the quadruped to the human being has *long* been suspected, or rather painfully *known* by the veterinarian," stated in a lecture, delivered in the University of London some time *after* the appearance of my paper, and published by him *only last year* in the Lancet, that, "notwithstanding a loathsome and fatal disease results (in the human being) from inoculation with the matter of glanders," he doubted "that it bears the true character of glanders," and *he did not think it worth while to mention a single fact detailed in my paper, or even allude to it at all.*

Under these circumstances, I presume it will be acceptable to the Society if I relate another case of the disease, in which not only symptoms and course agreed with those of all the rest, but the connection with a glandered horse was proved, and, a complete examination having been allowed after death, the appearances disclosed were the same as those observed in the horse.

Case.—William Johnson, aged 23, was admitted on the 31st of January, into St. Thomas's Hospital, under Dr. Williams. He complained of tightness across the chest, pain in the right side and loins, and great lassitude. The tongue was somewhat coated with yellowish mucus. There were sweating and thirst and the pulse was 90.

On the 2d of February, there was pain of the head and loins, and frequent watery and offensive stools. He became a little incoherent in his answers, rigors began, and the tongue was tremulous. He continued to be occasionally delirious, and on the 4th, in addition to the other symptoms, there was pain in the forehead and vertex, in the right hypochondrium, and in the extremities. On the 10th, he had been furiously delirious, and required strapping down; he complained of gnawing pains in all his limbs, of great difficulty in moving the left arm, for the joints were very painful, and the knuckle of the fore finger was tumefied and red; the discharge from the skin was profuse, sour and offensive; leeches were applied to the temples. On the 11th, the swelling on the hand had increased, there was also a red swelling on the right outer ankle; the tongue was covered with a brown dry fur, and there were much thirst and heat of throat. On the 13th, a portion of his chest which had been blistered before his admission, and had now been sloughing several days, was affected with burning pain; the right temple on which the leeches were applied, was much swollen, and dark coloured; the right eye closed, and the leech-bites sloughed and discharged an unhealthy pus. On the 14th, in the evening, an offensive and yellowish discharge began from the right nostril, and a large swelling arose in the middle of the forehead of a purplish appearance; the left eye was nearly closed and numerous tumefactions took place on the arms and legs; several phlyzacious pustules were seen on the left side of the neck; the pulse was 112.

Mr. Stone, the assistant apothecary, who had seen the former cases of glanders in the hospital, imagined, from the present appearances, that this must be one of the same kind, and on questioning the man, actually learnt that his occupation was amongst horses, that he had been grooming a glandered horse, kept in a stable by itself, and that he remembered that the discharge from the nostril had frequently fallen upon his hand, upon which the scar of a wound was still visible.

On the 15th, being in the hospital, I was requested by Mr. Stone to see the patient, and I did not hesitate for a moment to coincide with him in opinion. I did not know the man's occupation, but asked him the same questions that Mr. Stone had put to him, and of course received the same answers. The whole scalp was now be-

come tumefied, the forehead purplish, the eyelids red and shining, the burning sensation in the throat and nostrils, and the thirst, were intense, more tumefactions appeared on the extremities and abdomen, and several phlyzacious pustules appeared on the left side of the body. The discharges from the skin and bowels continued copious. The pulse was 124.

On the 16th, the discharge from the nostrils, chiefly from the right, was very considerable, and of a glutinous and brownish character, and ran in a continued stream down the face and neck; the thirst was unquenchable. Another purple tumefaction appeared on the right side of the nose near the inner canthus, and soon increased so as to occupy nearly the whole of that side of the nose.

On the 17th, he sunk, and died early in the morning.

Autopsy.—On cutting into the various tumefactions on the head, trunk, and extremities, they were found to be full of pus, underneath which, in many, a number of small white granules were seen; and these, in several instances were closely attached to the periosteum or perichondrium. The frontal sinuses contained a jelly-like secretion, and a number of similar granules, and on the septum narium was an ulcer exactly like those which I have seen in the nostrils of glandered horses, and upon it lay a cluster of granules.

Two or three very large white circular elevations were found immediately below the sacculi laryngis. Mr. Youatt, who was present, called them "true glanderous chancres."

About an inch below the valve of the colon, for three inches in extent, on the whole of the surface, were white granules exactly like those in other parts.

In my former paper I stated that "as two cases, and I might say three, of this disease have occurred within my own observation in so short a space of time, and a fourth has been recorded within the same period, all in different places, I cannot but imagine that the disease, though rare, is not of *extreme rarity*, more especially when I reflect that it is not likely to be recognized, and was not in the two instances at St. Thomas's Hospital, and that it may be communicated by an abrasion of the cuticle so slight as to escape notice."

Since the publication of the paper, upwards of a dozen cases have been related to me by medical men, which they are now satisfied were instances of glanders.—*Med. Chir. Trans. Vol.* 18, *Part* 1.

CASE OF BONY UNION OF A FRACTURE OF THE NECK OF THE FEMUR

Within the Capsule, occurring in a young subject. By Edward Stanley, F. R. S., Lecturer on Anatomy and Physiology, and Assistant Surgeon to St. Bartholomew's Hospital. Read 27th May, 1833.

A young man in his eighteenth year fell from the top of a loaded cart upon his right hip, the injury of which was attended by the following symptoms. He was wholly unable to move the limb, and suffered severe pain when it was moved by another person. The thigh was bent to a right angle with the pelvis, and could not by any means be extended. Abduction of the thigh was difficult. The limb was everted, at first slightly, afterwards in a greater degree. The soft parts around the hip joint were considerably swollen. There was no shortening of the limb, but rather the appearance of a lengthening of it in the erect posture, probably from the obliquity in the position of the pelvis. No crepitus could be felt in any movement of the limb.

The foregoing symptoms were not considered to indicate conclusively the existence either of dislocation or fracture. The age of the patient was unfavourable to the occurrence of a fracture of the neck of the thigh bone, the general opinion therefore of the several surgeons to whose judgment the case was submitted, favouring the belief of a dislocation into the foramen ovale, forcible extension of the limb was made by means of the pulleys, and the thigh then moved in several directions, by which the head of the bone might be replaced in its socket.

About two months after the accident, the patient was received into St. Bartholomew's Hospital. His health was now found to be much deranged. His pulse was frequent and hard. He complained of pain in the head, also in the injured hip, and down the opposite thigh. This illness was considered to be the effect of cold, but it did not yield to the treatment which was adopted. He remained nearly in the same state for about a month, and during this period, on account of the derangement of the health, no examination was made of the injured hip. At length, eruptions appeared generally over his body, which were considered to be small pox, and in two days afterwards, he died.

In the examination of the body, no other morbid appearances were discovered besides those of the injured hip joint. The capsule of the joint was entire, but a little thickened. The ligamentum teres was uninjured. A line of fracture extended

obliquely through the neck of the femur, and entirely within the capsule. The neck of the bone was shortened, and its head, in consequence, approximated to the trochanter major. The fractured surfaces were in the closest apposition, and finally united nearly in their whole extent by bone. There was an irregular deposition of bone upon the neck of the femur, beneath its synovial and periosteal covering along the line of the fracture.

The foregoing case is remarkable from the occurrence of a fracture of the neck of the femur within the capsule at an early age, and it is I believe the only example of it on record. In the memoirs of the Academy of Surgery*, Sabatier has related the case of a boy aged 15, in whom, after a fall upon the hip, lameness ensued, and sometime afterwards, a shortening of the limb to the extent of three inches, with a projection of the trochanter major, and an inclination of the whole limb inwards. The patient recovered sufficiently well to be able to walk, but with a considerable restraint in the movements of the thigh. Here it may be presumed a fracture had occurred, but it is certain that the seat of it could not have been within the capsule of the hip joint from the great extent of the shortening of the limb.

It will be remarked that in the instance now recorded, notwithstanding the free and repeated examinations of the limb, and the forcible extension of it by the pulleys, in short, with every circumstance except the age of the patient, unfavourable for a bony union of the fracture, this had been nearly completed. If this case had occurred at an advanced period of life, we may be certain that there would have been but a very imperfect union of the fracture, and it shews satisfactorily, that in the ordinary cases of fracture of the neck of the femur within the capsule, the age of the patient and consequent deficiency of vascular action, especially in the separated head of the bone, is the most influential of the causes to which the failure of a bony union has been in general ascribed.—*Med. Chir. Trans. Vol.* 18, *Part* 1.

* Tom x. 12mo. edit.

MEDICAL RETIRING FUND.

The Bengal and Bombay Medical Establishments are petitioning the Court of Directors for permission to form Retiring Funds, to grant Annuities to their Seniors in order to facilitate their retirement, and to expedite promotion, upon the principle which has been not only sanctioned, but liberally assisted by the Honorable Court, for upwards of twenty-five years in the Madras presidency.*

The Court in reply to the Bombay petition, have expressed their approbation of the general principle, and have recognized the vast advantage to the service of Seniors being enabled to retire, ere exhausted by age and climate in the efficiency thereby obtained at the head of the department, and the spirit of hope and energy thereby infused through the inferior grades; but they have observed that at Madras, the Medical fund contains within itself a charitable branch for provision of widows and orphans distinct from the Military; whilst at Bengal and Bombay, the Surgeons are incorporated in the Military charitable fund, and consequently the Court conceive that they should, in like manner, join the Military retiring fund about to be organized, and under that impression, have refused their sanction to a separate fund. This ultra consideration for the supposed claims of the Military upon their Medical brethren appears to have gratified neither side. A correspondent of the *Bombay Courier*, under the signature of "The Grey-haired Captain," has exposed the fallacy of the union, being supposed a benefit to the Military; whilst the Medical establishment have renewed their application with the strong support of Lord Clare's government, that they may be allowed a separate fund, for reasons, which appear to be conclusive.

The Bombay petition first states that their subscribers (upwards of one hundred) have, with one exception, joined in the prayer for a separate fund; that among other discrepancies betwixt the Military and Medical establishment, viz. age at entering the service, professional habits, and periods of retirement, the two branches of service differ so strongly in the proportion in which rank is assigned them, that no arrangement could equitably proportion their monthly subscriptions and eventual claims. The Military, in fact, enjoy the proportion of fifteen per cent. field officers, and only sixty per cent. subalterns; whilst the Medical services of Bengal and Bombay are allowed only four and two-thirds per cent. field officers, whilst they have upwards of seventy per cent. subalterns, and that too in a body of which the junior, when he joins, is not a lad of sixteen, as the Military cadets are, but a professional man, who must be twenty-two years of age, and Member of a Royal

* The Madras Retiring Fund gives two Annuities of £400 each and one of £200 annually to Retiring Members.

College, after six years' preparatory education.

It is impossible to conjecture what new modification the Medical department may eventually undergo, but it may reasonably be hoped that a greater liberality in the distribution of rank will be extended in favour of the senior surgeons, of whom there are very many, at each of the three presidencies, who, after twenty-five, and six years preparatory education,—which brings their claim for consideration parallel with Military servants of thirty-one years' service,—have still no higher rank than surgeons or captains; the new rank of staff surgeon, with the rank of major, and eligibility to the best appointments, might be formed for these unfortunate gentlemen, whose situation deserves commiseration and relief.

As respects the retiring fund,—the civil fund is now working, and the Court possess grounds on which to calculate how far the life insurance system, which they have organized for their civil servants, is likely to pay its own way; and to what amount, and where the debit or credit may probably be. In India, it is generally argued, that Government will derive a very great advantage, and that more liberal terms might be afforded to their Civil servants; but admitting the balance to fall, as it probably will, to the credit of Government, then it may be suggested that a Medical Fund for all India, based upon the rules and provisions of the Madras Fund might be safely, and most advantageously for all parties, established by Government.

The Medical Servants for all India exceed 700; the union of their subscriptions into one Fund, as is done with the Civil Fund, would ensure its perfect stability, and would simplify and economize its working; or perhaps the very establishment now existing for the Civil Fund, with a very trifling addition, would suffice for both.

Supposing this practicable, then five Annuities of £400 each for Bengal, three to Madras, and two to Bombay; would be nearly the fractional proportion; and admitting the Civil Fund to be an equitable adjustment for both parties, and twenty-five years experience having shown the Madras Retiring Fund to be a successful scheme, then it may safely be assumed that Government would suffer no pecuniary loss whilst the benefit of the service would be incalculable. Government would at the same time abundantly secure their aim of being efficiently served by the comparatively early retirement of their officers, ere the worn out veterans had become worse than useless through age and climate. Thirty years wear and tear is too much for those who land in India at twenty-two; very few are good for much after the age of fifty, of which twenty-eight years have been spent between the tropics. But without a retiring fund, in the present, and probable future state of the service, and of the money market, affecting interest and change in India, no man can be supposed likely to be able to quit the service under thirty years, however fortunate or prudent he may have been, and supposing he has rigorously imposed upon himself the penalty of celibacy. —*Asiatic Journal, Nov.* 1833.

STONE IN THE BLADDER.—LITHOTRIPSY.

To the Editor of the Edinburgh Medical and Surgical Journal.

Sir,—Notwithstanding my disapproval of "the hammering of stones in the bladder," expressed in my Elements of Surgery, I have deemed it incumbent on me to give the practice a fair trial,—the improved instruments appearing both simple and efficient.

I have, accordingly, employed the *percuteur* in two cases. The result has proved so far beyond my expectation, that I send you the following short statement for publication, hoping that it may induce others to make trial of the apparatus. For it is only from the accumulated experience of the regular surgeons, that we can hope for certain advancement in lithotritie.

The first patient on whom I employed the *percuteur*, thus describes his case.

Edinburgh, 9th September, 1833.

"Sir,—After being afflicted for upwards of two years with what I supposed a complaint in my bladder, I waited upon you for advice. Upon sounding, you discovered there were several stones in my bladder, and immediately extracted (by Weiss's forceps) one much larger than I conceived possible to come through the urethra. At my second and third visits, eight or ten smaller stones were extracted; and by using sweet spirits of nitre, and drinking largely of barley-water, as you advised, I passed, in the course of a few weeks, from sixty to seventy pieces of stone, varying from the size of a small white pea, to that of a small horse-bean.

"At my fourth and fifth visits, you ground down with an instrument, which I suppose of French invention, (Civiale's improved three-branched instrument,) a stone supposed nearly an inch in span, and ano-

ther about the size of a Spanish nut. By again using spirit of nitre, and drinking barley-water, many small fragments were passed.

"After a lapse of several months, I again waited upon you, when you ground down with a new instrument (the percuteur), a small stone; and, in fourteen days thereafter, when I again waited upon you, you ground down two stones, one of them of considerable size. Agreeably to your instructions, on both these occasions I used sweet spirit of nitre, and drank a good deal of barley-water, which caused a great number of fragments of stone to come away, and stuff like slaked lime.

"The pain and uneasiness caused by the new instrument, was infinitely less than what was caused by the other.

"When I waited upon you on Sunday the 26th ulto., fourteen days after the last operation, you sounded me two or three times, without discovering any thing in the bladder. You then injected some warm water, and sounded again, with the same result.

"Since the last operation with the new instrument, I have been entirely free from pain, and now make water with as much freedom and ease as ever I did in my life. Thus, you have cured me of a most distressing complaint, for which I can never be sufficiently thankful and grateful to you. —I am, Sir, &c. J. M."

The working of Civiale's apparatus in this case produced considerable pain and irritation, whereas the *percuteur* caused almost no pain whatever, the patient merely complaining of the annoying sensation which accompanies a strong desire to make water. There was also no admixture of blood with the urine that escaped during the operation, showing that no injury had been done to the coats of the bladder.

Thomas Baxter, æt. 54, a labourer, applied to me, suffering under the usual symptoms of stone in the bladder. On sounding, I detected a calculus, apparently of no great size; and, as the bladder was tolerably capacious and not particularly irritable, I proposed again trying the *percuteur*. I found rather more difficulty in seizing the stone than in the former case; but, without causing much pain, succeeded in grasping it, and accomplishing one crushing. He remained in town two days, passing a good deal of sand, but no fragments. He then went home (to Kirkaldy), so trifling was the irritation produced by the "sitting," and returned after the lapse of a week. He was then admitted into the Infirmary, August 18th. Next day the operation was repeated with very little suffering; and a good deal of sand was afterwards passed with the urine. On the 29th, the operation was performed a third time; and next day a great quantity of sand and fragments passed off with the urine. This was the most severe sitting. There was some difficulty, and consequently delay, in catching the stone; the patient complained a good deal; and the urine that escaped was bloody. On September 6th, a fourth sitting took place; and, having then grasped a body fully as large as in the preceding operation, I was led to suspect that there had been originally two stones in the bladder. Next day "several large pieces" were passed, along with much sand. So little did the patient suffer from this last sitting, that I was induced to repeat the operation to-day. Several fragments, of no great size, were seized and crushed; and it is probable, that now the bladder will be cleared by its own efforts. Perhaps one other sitting, certainly not more, may yet be necessary.

From this brief experience, I am convinced, that the *percuteur* is both safer and more efficient than the instrument of Civiale, and that it will be employed with advantage in those cases of stone which admit of lithotritie,—unfortunately, but a small proportion of those which present themselves to the surgeon.

99, *George Street*,
September 9th, 1833.

[*Mr. Liston in Edin. Med. & Surg. Jour. Oct.* 1833.

THE INDIA
Journal of Medical Science.

CALCUTTA; JUNE 1, 1834.

Having already exceeded our prescribed limits from an anxious desire to put our readers in possession of the 1st part of the 18th volume of the *Transactions of the Medico-Chirurgical Society*, a valuable, but as respects this country, most expensive work; our Editorials must necessarily be short. We have made a copious analysis of the work, and given at length those cases not particularly noted in the former, so that we hope our readers, in general, will not feel the want of the original.

The communications of our kind contributors call for no particular remark, even

had we sufficient space to devote to comment. Dr. Wise, in his continuation of the subject treated of in our last, draws copiously from a great variety of sources, and gives very cogent reasons in support of his opinions. It has always struck us as a remarkable fact, in support of the notion of the blood's possessing some inherent quality of vitality, that the hybernating animals may have their temperature reduced below the freezing point with impunity. The natural temperature of the hedge-hog, for instance, is about 97°—yet, during the state of torpidity, into which the little animal falls in winter, the temperature of its blood has been reduced to 30° of Farenheit, or 2° below the freezing point. Of the correctness of this result, there can be no reasonable doubt, as the experiment was performed by the acute Jenner (who, like almost all, very eminent in the profession, was passionately addicted to the study of Natural History), at the request of the great John Hunter.

Our friend, Mr. Atkinson, as usual happily blends the amusing with the instructive. On one point, however, he will pardon us for differing from him. In common hypochondriacal cases, the perusal of medical books by the patient no doubt may be productive of much evil. Instances, however, have come before us, where the knowledge of the fatal tendency of the disease under which the patients laboured, so far from incapacitating them from exertion, or lamentably relaxing their mental faculties, has, on the contrary, appeared to invigorate their energies. Aware that they had no time to lose to arrange their affairs, to provide for their families, and "to put their house in order" previous to the great change; the mind soared triumphant even while its clayey tenement was fast crumbling to pieces. It is thus that a high, or even common place, intellect, if of a vigorous order, is enabled to exert itself usefully in the prospect of hourly expected death, and to make conclusive arrangements which otherwise could not have been accomplished. The reader, in illustration of such a noble trait of character, will remember John Hunter, and Mr. Baillie, (well known as a man of literature) to which eminent examples we may add the name of one well known and appreciated among ourselves, the lamented Mr. Scott of Assam.

We beg to hold out the hand of welcome to our new contributor. The sketches of the Medical profession in Edinburgh will awake thoughts of *auld lang syne* in the bosom of our friends from the North—and those from the South who have never had the pleasure of seeing the celebrated author of the treatise on *Inflammation*, will find him here drawn with graphic freedom.

We anxiously wait for the conclusion of Dr. Campbell's curious case.

Mr. Raleigh's Hospital Reports need no praise of ours—they speak ably and convincingly for themselves, and comprise a clear array of facts with conclusive reasons of practice. His manner of detailing both is also unaffected and happy.

Mr. Hutchinson's humane proposal for establishing an Admission Room to the General Hospital, in the town of Calcutta, is deserving of more consideration than we can bestow upon it at present. Accidents occur, and cases of urgent extremity offer, in which every moment's delay adds a nail to the coffin of the unfortunate individual. We should like to see the point discussed at large by some of our experienced subscribers. If such an Admission Room were to be established, it would be quite out of the question that the Medical Staff of the General Hospital, as now constituted, could give it their attendance. The charge might be entrusted to some Medical man near the spot, in or out of the service, as the Directors of the Institution might deem expedient, at the election of a Surgeon from the candidates that might offer. We cannot concur with Mr. Hutchinson in insisting upon the

medical man attending three hours of a morning and one of an evening. We question the utility of minute legislation in such points. We would leave the matter entirely to the medical gentleman himself, who surely must be the best judge of the necessary frequency and duration of visits to the sick. Accidents and sudden attacks happen at all hours. The Surgeon, therefore, should attend when his presence was required—no matter at what hour; but of a morning he might be ready to give advice to out-patients. It strikes us that such an Institution might be rendered still more useful, by comprehending within its plan a ward for a class of men for whom no public provision whatever is made in case of sickness or accident; we allude to officers of ships and other respectable sea-faring persons, who, in the event of illness, either remain on ship-board, or are left to the tender mercies of native servants in some obscure lodging houses. Few, very few of these, except in the most desperate extremity, like to go to the General Hospital, for obvious reasons. To the mercantile community must we chiefly look for support in establishing such a ward as we contemplate, and which we feel convinced would be the means of saving many a worthy and highly respectable young man from a premature death in a foreign land. At present we merely throw out the hint. We may enlarge upon it, and Mr. Hutchinson's proposal by and bye.

Under the head of *Medical Intelligence* will be found a new feature of our Journal, in the General Orders of Government, relative to the Medical Service. They are commenced upon from the beginning of the official year; and, we doubt not, will be found useful by our brethren of the service, who will thus have a regular series of all General Orders affecting their body to refer to, unencumbered by the mass of other details unavoidable in compilations of the whole.

We congratulate our brethren upon the fair prospect now held forth of the establishment of a Medical Retiring Fund. Among our selections, is an article from the *Asiatic Journal*, in which so much is said in favour of the plan, and indeed of the Medical Service generally, that we cannot but feel highly gratified at such an indication of proper consideration in high quarters, for a hitherto comparatively poorly-requited corps. The *Asiatic Journal* is generally supposed to be a demi-official organ of the Hon'ble the Court of Directors, and if this supposition be correct, we may look upon the article quoted as a harbinger of ultimate good.

One point the *Asiatic Journal* does not seem to have duly reflected on. Our Fund can never be joined to that of Madras, so long as it includes what is there called the Charitable Branch; since the widows and orphans of Bengal Medical Officers have a distinct provision. There are also other objections to the consolidation of the Funds of the three Presidencies, which render the proposal quite inadmissible. We are better separate on many accounts. We are glad also to observe allusions made to the probable employment of Medical men in appointments to which they have hitherto been considered almost ineligible. Such a consummation, we anticipate, would extend their sphere of utility, and stimulate their energies, without compromising their professional claims or adding to the cost of the State.

The state of the weather during the greater part of last month, and more especially between the 8th and 23d, was oppressive to a degree, that, we scarcely recollect any thing to equal it. The usual north-westers during this scorching interval were wanting, and the nights were overpoweringly sultry. In the morning the thermometer generally stood at 92°, and in the middle of the day at 96°, and even

higher in some houses. Although, generally speaking, we are disposed to consider the warm weather as on the whole the most healthy in the year; yet when the heat becomes, as it did during this season, extreme, it must be expected that a good deal of sickness will be the result, more especially among those who are much exposed to its unmitigated power. Even to persons who remained all day in the house, the sensation of heat was intense. What then must it have been to those whose occupations required them to be much in the open air! All classes indeed at such a juncture suffer from excessive thirst. To allay this the mass of the inhabitants look to the river and the tanks. The water in several of the latter, however, has been exhausted in watering the roads; and the river, and the remaining tanks, generally become brackish during the hottest part of the season. The water in the Lalldingy, for instance, is usually pure, soft, and sweet, but of late it became so disagreeable, that most persons who could procure water elsewhere gave up drinking it; and preferred sending for some even as far as Allipore. We have tried the experiment of filtering, and purifying the Lalldingy and river water, but without the effect of rendering it palatable. It is all very well, however, for those who can mix some qualifying ingredient with indifferent water, or who have some other means of quenching thirst. It is mighty different with the poor—and with the natives generally, rich or poor. They have neither tea, nor beer, nor soda water, nor brandy and water. They must trust to the brackish and foully surcharged water of the river, or muddy and half evaporated tanks reeking with fish. The English, perhaps of all people, are most indifferent respecting a supply of that vital element water. Their own country abounding with the purest water; apparently they do not consider that it is very much the reverse in other places. We have been now in possession of India for a sufficient time to make us blush to think how little has been done towards the supply and conveyance of water for the purposes of comfort and existence. What would not the Romans have done in the same space of time! What is the remedy for this? To us it seems that the proper remedy in the first instance is, to draw water from the river *only* for sprinkling the streets—but it would be proper for meeting the wants of the city in an efficient manner that one or more steam engines, like that at Chandpaul Ghaut, should be erected. This would leave the tanks with their proper supply—but in addition to this the earth ought to be bored for springs, which would afford a permanent supply of pure and fresh water that would not be affected by the state of the weather. An experiment of boring for spring water has been going on for some time in the Fort—but there is no valid reason why one, or more, such, should not be tried in other spots that may for aught we know be more favorable for the purpose. Two or three artesian springs in Calcutta would be a source of immense convenience and blessing to the poor—thousands of whom perish annually in the hot weather from the badness of the water.

The following has been pointed out to us by a friend, who marked it off in a recent No. of the *New Monthly*. Although rather loosely expressed, and the authority is not given—nevertheless we deem it worthy of notice.

Dr. Buisson is said to have discovered an infallible remedy for hydrophobia, which he has communicated to the Academie des Sciences in Paris. He had no expectation of recovery, and went into a vapour-bath, heated to 42 degrees Reaumur (126 Fahrenheit) as the easiest mode of suffocation. To his astonishment, the whole symptoms vanished at once, and he has never since had the slightest recurrence of this dreadful disease. By the same means he has cured upwards of eighty patients, and he intends to try its efficacy in cases of cholera, plague, yellow fever, and gout.

MEDICAL INTELLIGENCE.

General Orders.

May 1st.—Assistant Surgeon James Duncan to be Surgeon, vice Surgeon Walter Glass, M. D., retired, with rank from the 25th February 1834, vice Surgeon J. McDowell retired.

Surgeon B. Burt, M. D., to rank from 28th August 1833, vice W. Glass, M. D., retired.

Surgeon J. Dalrymple, ditto 20th September 1833, vice G. Waddell, M. D., deceased.

Surgeon D. Butter, M. D., ditto 1st February 1834, vice C. Robinson retired.

Apothecary Daniel Hodgkinson is appointed to the Medical Depôt at Agra, vice Apothecary O'Brien permitted to accept the situation of Head Assistant to the Native Hospital at Calcutta.

The following Promotions are made in the Subordinate Medical Department:

Hospital Apprentice Thomas Nulty to be Assistant Apothecary, from the 16th April, 1834, vice J. Freame deceased.

Hospital Apprentice Marcus Hackerdon to be Assistant Apothecary, from the 18th April, 1834, vice C. J. Woodward deceased.

Assistant Surgeon H. Maclean, of the Mhairwara Local Battalion, now doing duty with the Nusseree Battalion, is directed to afford Medical aid to the Civil and Military Officers and their Families residing at Simla, during the present season.

Assistant Surgeon A. Gilmore, M. D., is directed, at the expiration of his present leave, to proceed to Meerut, and place himself under the orders of the Superintending Surgeon at that Station.

7th.—No. 102 of 1834.—Assistant Surgeon Henry Harpur Spry, attached to the Civil Station of Saugor, Hutta, and Rehly, under the Political Agency of the Saugor and Nerbudda Territories, is permitted to proceed to Europe on Furlough, on Medical Certificate.

8th.—Asst. Apothecary Thomas Nulty (new promotion,) is directed to join and do duty at the General Hospital, until further orders.

Assistant Apothecary Marcus Hackerdon (new promotion,) will continue at Meerut, and do duty under the orders of the Superintending Surgeon, until further orders.

Hospital Apprentices James Sheels and John Burns, at present attached to His Majesty's 44th Foot, having been reported unfit for the Service from their dissolute and disorderly habits, are to be struck off the strength of the Subordinate Medical Department, from the date of the publication of this Order at Chinsurah.

The undermentioned Officer has leave of absence:

1st Regiment Light Cavalry—Assistant Surgeon G. Anderson, from 15th April to 15th October, to visit Mussoorie, on Medical Certificate.

9th.—The Meerut Division Order of the 22d ultimo, directing Assistant Surgeon T. Scott, on being relieved from the Medical charge of the 40th Regiment Native Infantry, to proceed to Agra, and place himself under the orders of the Superintending Surgeon at that Station, is confirmed.

The Dinapore Division Order of the 29th ultimo, appointing Shaikh Asmut Allee, Native Doctor, to the 64th Regiment Native Infantry, to fill a vacancy, is confirmed.

The Presidency Division Order of the 28th ultimo, directing Assistant Apothecary J. Marshall to act as Assistant Apothecary and Assistant Steward to a Detachment of His Majesty's 38th Foot, proceeding from Fort William to Berhampore, is confirmed.

Assistant Apothecary J. Marshall is posted to the Hospital of His Majesty's 38th Foot, vice Woodward deceased.

The Cawnpore Division Order of the 28th ultimo, sanctioning an exchange of situations between Shaikh Tegh Allee and Kaley Khan, (2d) Native Doctors, by which the former is appointed to do duty with the 6th Regiment Light Cavalry at Cawnpore, and the latter is posted to the 58th Regiment Native Infantry at Sultaunpore, Oude, is confirmed.

10th.—The Saugor Division Order of the 26th ultimo, directing Assistant Surgeon J. H. Dallas, M. D., to do duty, on his arrival at Baitool, with the 18th Regiment Native Infantry, is confirmed.

17th.—Meer Koodrut Allee, Native Doctor, attached to the 65th Native Infantry, having been reported unfit for his situation, is to be discharged the Service, from the date of the publication of this Order at Mhow.

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Original Communications.

HOSPITAL REPORTS.

SUMMARY OF MR. RALEIGH, FOR MAY, 1834.

PURPURA HEMORRHAGICA.—Purpura Hemorrhagica is a disease of such very rare occurrence, that few opportunities present of studying its phænomena, its pathology is evidently not understood, and from the entire discordance in the opinions of those who have written on the disease, as to the appropriate method of treatment, we may conclude, that this point also is in an equally undecided and unsatisfactory position. After perusing the descriptions of systematic writers, and the several scattered cases which have from time to time appeared in periodicals, and contrasting the character of the patients, and the methods of treatment resorted to, (than which nothing can be more opposite) we can scarcely fail to come to a conclusion, that the disease must exist under two very opposite states of the constitution, namely—In a *cachectic* condition of the system, and in a *too animalized* state of the system. Without admitting this, it is impossible to reconcile the contradictory accounts of which we read, of the equally successful results of an antiphlogistic, and a stimulating or tonic practice.

The interesting case which I am about to describe, will belong to the second class, and it is one which will claim particular attention, from its differing in many respects from any case which I have seen described —first, as regards the visible properties of the blood, and secondly, from the perfect absence of local inflammatory symptoms, or of any sensible general indisposition.

By authors the blood is described in most instances, as being of weak texture, and forming no coagulum on cooling, or the coagulum is very soft, and bears *no proportion to the serum in quantity*. In others, the blood coagulates, and has a *very thick buffy coat*, so remarkable, that the red globules appear all to have subsided to the bottom of the vessel—these seem to be the two states of the blood particularly adverted to, the latter being most unfrequently mentioned, and where it existed was generally in connexion with some local inflammatory indications.

Case.—J. C., æt: 21 years, a stout well made man, arrived at Calcutta about two months since, from North America—the voyage had been performed in 123 days, during which time he had been fed principally on salt provisions, but from the time of reaching India, had been liberally supplied with fresh meat, vegetables, &c. &c.—he had invariably enjoyed good health at sea; and, during the last voyage, had been perfectly free from scurvy, or any other complaint.

When he had been about a fortnight in harbour, without any premonitory or attendant symptoms of indisposition, he observed a "*red rash*" on his face, chest, arms, and thighs; these spots became daily more numerous, large in size, and of darker colour, for about six weeks—three days previous to his admission into hospital, copious bleeding took place from the mouth, from which a constant draining of blood had continued —he had not observed the state of his evacuations.

On the evening of the 1st of May, he became a patient of the General Hospital; at which time, although his countenance was rather sallow, he declared he experienced no uncomfortable sensations, and was free from any local pain—his appetite was unimpaired, and he slept well. The face, chest, and trunk generally, but particularly at the sides, over the shoulders and nates, the arms and thighs, were *thickly* covered with spots, varying in size from a pin's head to the circumference of a large pea, and of various shades of colour, between bright purple and dark brown. The surface of the integument over the eruption was quite smooth, not at all elevated—on the fore-arms and nates were several large vibices in stripes, as if produced by the lash of a thick whip—these marks were of very *black colour*, and irregularly elevated, so as to communicate a rough sensation to the feeling. On the feet and hands

the eruption was much more scanty, and the petechiæ of smaller size. On the dorsum of the tongue, were five black *elevated* spots, of the size of a pea—and on the inside of each cheek were two similarly elevated spots of the size of a six-pence, with irregular edges—the soft palate, and uvula, were thickly speckled with petechiæ, the gums were *not* ulcerated—he had no contraction or stiffness about the joints—the pulse was full, firm, and quick, the skin of natural temperature, but rather dry, the tongue clean.

May 2d, 6 A. M.—He was bled to faintness, and took P. Jalapæ: Comp. ʒi.—diet milk and sago.

P. M.—ʒxx. of blood were drawn this morning before he became faint, which was of very dark colour—and coagulated into a firm clot, without separating *a particle* of serum—having *any* buffy coat, or disposition to contract, but completely occupying the calibre of the vessel into which it was received.

He had passed three stools of greenish pulpy fœces, containing a considerable quantity of blood, and had had a copious discharge of blood from the mouth through the whole day—about an hour after bleeding, his *voice became hoarse*, and he complained of a sense of constriction at the lower part of the chest, and had a dry, frequent cough.

Bleeding repeated—Pulv. Jalapæ Comp. ʒi.—at the second bleeding, faintness followed the loss of ʒviij. of blood—which coagulated into the same solid clot, separating no serum.

3*d*.—During the night, he spat at least a pint of dark blood, (not including the saliva, which altogether amounted to at least two pints)—had no stool, his pulse continued quick and firm, skin hot and dry, the voice remained hoarse—the spots on the tongue appeared to have somewhat decreased in size, he was free from any uneasiness of the chest, or elsewhere.

Bleeding rep^{d}. to approaching Syncope—Magnes. Sulph. ʒij — Acid. Sulph. Dil. g^{tt}. xx.—Aquæ. ʒij—every two hours—unless much purged.

P. M.—Had no stool during the morning—the urine which up to this time had been natural, now contained a large proportion of blood and mucous: he passed ʒij. only, through the day—the bleeding from the mouth was much less considerable, and the spots on the tongue and inside of the cheeks were observed to be gradually becoming smaller. Pulse small and slower, he complained of feeling weak.

Pulv. Jalapæ. C. ʒi—Infus. Sennæ ʒij.—Stat. S.

Saline mixture to be continued every two hours.

4*th*, A. M.—Passed three stools in the night, greenish fœcal matter, with a small quantity of blood—ʒiv. of bloody urine, having a thick mucous deposit; about a pint of blood had flowed from the mouth—the spots on the body and on the tongue were smaller and of fainter colour—the *original ones* on the inside of the cheek had nearly disappeared, but others had formed, and one on the left cheek was very large and much elevated, the hoarseness of voice was going off—the pulse was 88, fuller and firmer than last evening.

Bleeding rep^{d}. to approaching syncope.

Purgative Draught directly, and Saline Acid. Mixture.

P. M.—ʒxviij. of blood abstracted in the morning, of *florid* colour, coagulated into a solid clot, without separating one drop of serum. The spots on the tongue and skin evidently fading in colour, and smaller; had spat little blood; but four stools, which he passed during the forenoon, contained a large quantity of blood; and the urine also was bloody—pulse soft, 86.

Repeat Pulv. Purg. at 6 P. M. Cont. Mist.

5*th*, A. M.—Slept well; passed no blood by the mouth; had three dark fœcal stools, unmixed with blood; but lb.ss. of urine contained much blood, and had a copious deposit of mucous. The spots on the inside of the cheek and on the tongue were diminishing in size, of much fainter colour—some had altogether disappeared, leaving a whitish or ash-coloured mark, the larger spots on the skin were also declining, and the more minute ones were being *thrown off* with the cuticle, causing it to feel very rough.

Bleeding Rep^{d}. to ʒviij.—Pulv. Jalap. C.—Pulv. Scammon. C. (P. L.) aa. ʒss.—directly.

Continue Mixture.

P. M.—Pulse soft and moderate in size and frequency, skin moist—the blood taken this day was of the same homogeneous firm consistence and florid colour, separating no serum, and the surface being of the same red colour as other parts of the mass—the voice natural, six stools of light coloured fœcal matter, without blood; no urine passed separately from the alvine evacuations.

Repeat Pulv. Purg.

6*th*, A. M.—The large striped marks on the arms and nates had become cracked and rough, from the effused blood being exfoliated with the cuticle, so that the man *picked it off* in black crusts, the spots on the cheek and tongue were now very indistinct, he spat no blood, nor was there any in the stools, of which he had four during the night, of yellow frothy fœces—he passed ʒxij. of urine, containing blood

and mucous—his countenance becoming pale, and he felt weak.

Bleeding rep^{d}. to ℥iv—Pulv. Purg. and Mixture.

P. M.—Urine continued bloody, had three stools—℥ss. of clear serum separated from the crassamentum, which continued florid, free from buffy coat, or contraction.

7th, A. M.—His voice had again become hoarse—and he this morning was very feverish—had head-ache; a sharp, strong pulse, 90—the urine contained less blood—the stools none.

Bleeding rep^{d}. to ℥xiv—Pulv. Jalap Comp. ʒi.—directly.

P. M.—Pulse softer and slower—has less head-ache, no evacuation from the bowels. The ℥xiv. of blood drawn this morning, separated into about ℥x. of firm florid clot, and ℥iv. of clear serum.

Pulv. Jalap C.—P. Scammon. C. (P. L.) āā. ʒss.—directly and

Inject. Domest.

8th, A. M.—Free from fever—pulse 86—soft—three natural stools, and ℥vi. of high coloured urine, containing no blood—the petechiæ and vibices on the surface of the body had nearly all either been absorbed, or cast off with the cuticle, in black crusts—only one or two minute specks remained on the inside of the cheek, the sputa quite natural.

Rept. Pulv. Purg.

P. M.—Had some head-ache—pulse rather quick and skin hot—three stools—xij. leeches to the temples.

Rept. Pulv. Purg.

9th, A. M.—Pulse full, and very frequent, skin hot, and dry—tongue white, some head-ache—had three stools—urine high coloured, without blood.

Rept. bleeding in the erect position.

Rept. Pulv. Purg.

P. M.—℥xx. of blood drawn this morning, of which when cold—℥iv. was clear serum, and ℥xvi. florid coagulum of firm consistence—he felt better, but had still some head-ache, heat of skin, and frequency of pulse—one scanty stool.

Calomel gr. vi—Ext. Col. Comp. gr. x.—Ol. Croton. gtt. i.—Hor. Som. Sumend.

10th, A. M.—Still rather feverish—the eruption nearly extinct, and no blood passed in the evacuations.

Pulv. Jalapæ C. ʒi.—directly.

11th.—Improving.

Rept. Pulv. Purg.

12th.—Urine and fœces natural, no discharge of blood from the mouth—the eruption had entirely disappeared.

14th.—Appeared quite well, excepting being weak and pale.

Quinine S. gr. i.—Infus. Gentian. C. ℥iss.—Acid Sulph. Dil. gtt. xij. ter die—chicken diet.

16th.—Perfectly recovered, he continued a little weak, but notwithstanding that he had been bled eight times from the arm, and lost at least 120 ounces of blood, independent of the enormous quantity which flowed from the mouth, and was voided with the stools, and urine, he was never so much reduced by the treatment, as to be confined entirely to his bed, I found him daily walking about the Hospital, and he always walked to the door, or window, of a morning, in order that I should examine the eruption.

FEVER.—During the first half of May, the fevers partook of the common inflammatory character, usually prevalent at this season of the year, and were easily subdued by antiphlogistic remedies, but at the latter half of the month, when the heat of the weather became intense, the thermometer standing at 95° in the coolest houses, in the day, fever assumed a more malignant aspect—the inflammatory and congestive indications continuing long unabated, and after many days' duration declining into a low typhoid state, in which despondency, apprehension of death, irregularity of circulation, extreme prostration of strength, with a dry, dark, furred tongue; frequent small pulse—hot, clammy, and often yellow skin, and depraved, or arrested secretions, were among the most alarming symptoms—relapses were frequent and repeated, and convalescence tardy.

CHOLERA—also at this time became frightfully prevalent, and as well as the fevers of this period was frequently of a fatal description. Many of the cases, when met at an early stage, bore bleeding, and a stimulating purgative treatment, with good result.

DYSENTERY.—A few cases of acute dysentery were admitted, and a larger number of the more trifling bowel affections, than on the preceding month.

Cases of Chronic Dysentery, treated with the Sulphate of Copper and Opium.

E. R., æt: 34, a tall emaciated man, of very sallow complexion, twelve years resident in India, during which period he had been frequently subject to bowel complaint, came under my charge in the commencement of April, when he complained of very frequent purging, particularly at night and on the approach of morning, unattended by griping, or any abdominal pain or tender-

ness. During the day he suffered much from flatulence and distention of the belly, sense of weight at the precordia, and burning sensation in the stomach—the stools were fluid, of a pale yellow colour, having a curd-like sediment—the tongue was broad, pale, and soft, not coated, the pulse feeble, 86—his general appearance was that of a person whose health was much impaired—he was at first put on a course of blue pill, ipecacuana and gentian, without any benefit. On the 20th of April, he commenced with Cupri. Sulph. gr. ss. G. Opii. gr. ss. three times in the day; his diet consisted of milk and sago, or arrow root; the medicine, at first, caused slight griping, but this did not continue after the second day. On the 25th, he had passed but three stools in the night, and none during the day.

30*th.*—Since the 25th he had continued to have three or four evacuations daily, and felt that he was recovering strength.

May 3*d.*—No particular change since the report of the 30th.

Cupri. Sulph. gr. j.—G. Opii. gr. ss.—three times in the day.

May 7*th.*—During the last three days he had had but one evacuation daily, of light coloured fœces of thick consistence, the uncomfortable sensation of distention of the abdomen, &c. had much diminished, and he felt considerably better.

Medicine continued.—Diet, chicken or kid.

10*th.*—During the last 24 hours he had had no stool, he was feeling uncomfortable from distention of the bowels.

Ol. Ricini. 3vi., which operated five times, and afforded relief.

Sulphate of Copper and Opium continued.

15*th.*—Since last report he had continued to have one evacuation during the 24 hours, of rather clayey consistence, general health had very much improved.

Ol. Ricini. 3vi.—Cont. Cupri. Sulph. gr. iss.—G. Opii. gr. ss.—ter in die.

20*th*—By this date, he was feeling quite well, and had become much stouter, and of more healthy complexion—the bowels were torpid, and he suffered only from sense of fullness of the belly.

Omit the Copper and Opium—give Sulphur. Precip. 3i.—O. M.

24*th.*—The evacuations perfectly natural.

28*th.*—The patient felt, and appeared quite free from complaint, appetite craving.

Medicine omitted, he was cautioned against indulging in any other than a plain simple diet for some weeks—and has continued perfectly well.

Case of loss of Sensation, with partial loss of muscular power in the upper and lower extremities, treated with Strychnine.

J. D., an Indo-Britain, æt: about 30, was admitted in the hospital on the 23d of January, having lost all power of *feeling* in the upper extremities, from the fingers to the elbows—and in the lower extremities, from the toes to the knees—he had also but very imperfect command of the hands in holding, or grasping objects, and considerable difficulty in advancing the legs, in the act of walking, which he performed very awkwardly—the limbs and spine were at first rubbed with stimulating liniment, and the patient put on a course of mild purgatives without effect. On the 29th, a blister was applied down the whole length of the spine, and *Strychnine* gr. $\frac{1}{4}^{th}$ administered three times in the day.

February 14*th.*—No decided improvement had taken place, the patient fancied he could faintly distinguish when the skin was pinched or pricked.

The dose of strychnine increased to gr. ss. three times in a day.

16*th.*—He complained of a "*tingling*" sensation in the hands and feet.

Cont. Med.

18*th.*—The tingling sensation had increased, and he had frequent starting of the extremities, and twitching of the muscles of the face, felt stiff at the back of the neck, and very giddy—he could distinguish when the hands or feet were touched.

Decreased the dose of strychnine to gr. $\frac{1}{4}^{th}$ twice in the day.

20*th.*—Sensation in the extremities was now tolerably natural, he experienced only a sense of weight, and tingling in them, with slight head-ache, and occasional nervous starting.

Strychnine omitted—Mild laxatives administered occasionally.

26*th.*—The power of feeling was *perfectly restored*—but he continued to have stiffness, and imperfect action of the muscles of the arms, and legs, from which he has not yet entirely recovered.

Case of Chronic Paraphymosis.

April 23*d.*—J. B. had for several weeks had considerable swelling and induration of the prepuce, which formed a thick ring behind the glans penis, causing by pressure, a state of strangulation, and ulceration of the end of the pevis.

Several free incisions were made into the œdematous prepuce. Cold applied, and a purgative given, which occasioned a considerable diminution in the size of the swelling, and the strangulation was relieved.

May 4th.—The indurated ring of prepuce, continued of considerable thickness, the ulcer beneath did not spread, but was not disposed to heal.

Iodine ointment was rubbed on the thickened prepuce.

14th.—No change for the better having taken place, the man consented to have the prepuce removed—the indurated ring was completely dissected off, and in a few days, the parts healed.

GONORRHŒA.—In a former report, I made some allusion to a remedy which I have found very efficacious in the cure of this complaint, I mean the cubebs and capaviæ mixture, which I recollect Sir A. Cooper recommends in his invaluable lectures, and which I (and I believe others) have consequently usually named "Cooper's Mixture," by way of distinction. Where the stomach can retain this medicine, it is almost always speedily curative, and is as much entitled to be considered a "*specific*," for this affection, as most remedies are for those complaints, over which they are supposed to exercise such triumph.

Case.—R. M., a sailor, had had gonorrhœa nine days; profuse discharge of yellow matter, with some smarting of the urethra on passing urine, &c. were the prevailing indications of the disease.

Pulv. Jalapæ Comp. 3i. and a semicupium—were at first ordered.

And, subsequently, capaviæ mixture ℥iss. three times in the day.

By the third day, the discharge had much diminished—and by the sixth day, the man was perfectly well.

Case 2.—A female had had gonorrhœa for several months, the discharge was profuse. She commenced taking the *capaviæ mixture* on the 23d of last month, and was perfectly cured in eight days.

Case 3.—A young man had suffered from gonorrhœa for seven weeks, the discharge continued copious, of thin consistence and yellow colour—he took the *cubeb's mixture* for fourteen days, when having seen no discharge for five days, he was considered cured.

W. RALEIGH, *General Hospital.*

INTERESTING CASE OF GLOSSITIS.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—Having seen several accounts of swelling of the tongue in your valuable Journal, extracted from European periodicals, I thought the following case, that lately fell under my care, as I had never seen or read of one exactly similar, might be interesting to some of your readers.

One day, about the middle of February, shortly after reading an account of one of those cases I have alluded to, I was requested to look at a brahmin, about 14 or 15 years of age, of whom the following account was given. About six or eight weeks previous to that time, his feet, legs, and whole body were attacked by a swelling, which diminished for a short time, but returned again; and, finally, receded, leaving his face and tongue swelled, the latter of which continued increasing up to the period when I first saw him. The tongue was then greatly swelled, protruding considerably beyond the lips, and separating the jaws in front for nearly about an inch. The constant pressure of the tongue had caused the upper and lower incisors to protrude somewhat outwards, and to make deep indentations on its upper and under surface. He could not articulate, and his inability to swallow more than a few drops of liquid aliment at a time had reduced him to a state of great emaciation. By making several incisions in the protruding portion, I reduced the size of the tongue so much, that I was enabled to examine its state inside the mouth; and here I found a morbid adhesion existing between the tongue and right cheek, extending from the corner of the lips as far back as the middle of the lower jaw: and, on the left side, the molars had grown into the tongue, which adhered firmly to some of them and the subjacent membrane in the lower jaw. The adhesions on the right side were in a few days severed by frequent incisions, the hemorrhage from which gradually diminished the size of the tongue. Until deglutition and mastication became so easy that he could take a sufficient quantity of food, he got small quantities of sago and port wine. Partly by the knife, and partly by my finger, I separated the adhering parts on the left side; shortly after which, he could contain and move his tongue within his jaws with the greatest ease, articulate intelligibly; and, as the incisions healed, eat his ordinary solid food. In consequence of the protrusion of the incisors mentioned above, these teeth do not come into close contact when the molars meet each other; but from this he appears to suffer little inconvenience; and as he was anxious to return to his home, which was some distance off, I allowed him to go. Why the general swelling should have finally settled in his tongue, I could not ascertain; for, in other respects, he enjoyed good health, and appeared free from scrophulous affections. I got no account of the pro-

gress of the adhesions; but I suppose that, when the tongue and cheeks were swelled, the teeth produced ulcerations in both, which were the cause of the union.

I have the honor to be,

Gentlemen,

Your's, &c. &c.

A SUBSCRIBER.

Central India, April 2, 1834.

A. W. ON IRREGULARITY IN TEETHING.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

My Dear Gentlemen,—A perusal of the article in your number for this month, entitled The Physician, No. 5, on Teething, induces me to communicate two examples of extraordinary irregularity in the appearance of the teeth in infants, both of which I witnessed at this station. In one case, the four canine teeth, and in the other four molars, made their appearance, neither infant having previously got any teeth. Both children were brought to me in a dangerous state, the former having severe febrile symptoms and diarrhœa of some days duration, the other in convulsions. Their respective ages, eleven and eight months, with the existing symptoms, led me in the first instance to examine their mouths. The front gums, where any of the eight incisors might have been expected to be the cause of suffering, were perfectly soft and cool; but great heat, redness and swelling existed, in one case in the situation of the canine, and in the other of the molars: the free use of the lancet, calomel and castor oil completely relieved the little sufferers. The appearance of the molar and canine teeth before the incisors is so very unusual, I cannot feel sufficiently grateful that the situation of the irritation and suffering was so clearly pointed out. Such may not always be the case, and I dread to think that, if it had been otherwise, I might possibly have rested contented with freely dividing the gums in front, when eight teeth were to be expected to advance to the surface before any of those which did in those cases.

Your's very sincerely,

A. W.

CURVATURE OF THE SPINE.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—I am induced to address you in the hope, that by so doing, I may not only derive advantage to myself, but also have the gratification of benefiting others who may be labouring under a similar misfortune, a "Lateral Curvature in the Spine," for which, I believe, in the present almost infantile state of that branch of Medical Science, few successful remedies have been produced,—a deficiency that may rather be owing to the want of cases to practice on, than talent or inclination to effect their cure. Absence of the necessary means and patience, may have laid more deformed Spines in the grave than fractured thigh-bones or tumours have done perfect ones; and thus whilst some are not able, and others not willing to give their cases a fair trial, the Medical Practitioner can do nothing. I cannot say, however, that my own comes under either of these heads.

Nineteen months ago, (my age then being within a few months of twenty,) I entered the Presidency Hospital. To the gentleman there under whom I placed myself, I am indebted for every kindness and encouragement. I wish I could add, my cure. The case was described as follows:

12th August, 1832.—"Curvature of the "Spine, of nearly two years duration, and "the disease is increasing—appears healthy "—residence in India, eight months—the "disease began whilst he was employed as "clerk in an office in London. There are "two Curvatures, the upper in the dorsal "Vertebræ to the right, the right side of "chest shrunk; the lower to the left, and at "the Lumbar Vertebræ."

The measure adopted was (I believe Dr. Baynton's) "simple recumbency," but the means proved inadequate to the end. I lay without intermission for ten months and a half. At first, there was an evident change for the better, but after 3 or 4 months no improvement became visible, neither did the addition of friction with liniment produce any effect. I had not left the Hospital a week, ere the Curvature commenced increasing.

Having read 3 or 4 works on the subject, amongst others, *Dr. Shaw*, I determined on an *attempt* to cure myself. Unfortunately, the gentleman who kindly lent me Dr. Shaw's work, had not the plates, nor were they procurable. My only guide therefore was the description, aided by one or two little diagrams. With the assistance of native carpenters I succeeded, with difficulty, in completing the "*inclined stretching*

plane,"* of which I take the liberty of adding a rough sketch, together with the other portions of the machinery. To the Inclined Plane also belong *exercises*, to strengthen the muscles of the back. To this stretching and exercising, I am chiefly confined during the day. To sit up, I use the chair, constructed of a steel rod fastened to the back of the chair with weights and pulleys to support the body by the head and shoulders. And occasionally to walk about and go to my chief meal only, I wear the steel supporters, which, having no drawing to guide me, I was compelled to have made according to the best notions I could form upon the subject. The only deviation I am aware of having made, is substituting *screws* to lengthen them, for the "*sliding plates*" described by Dr. Shaw. To my ignorance of their proper mechanical construction may, perhaps, be attributed their galling me on *one* of the hips. I have endeavoured to sleep in them, but here the same cause may operate in making them so uncomfortable, that it is with great difficulty I can do so.

The *friction rollers* for exciting action in the deep muscles of the back, I use twice a day; with the application of a softening liniment of linseed oil and camphor, once.

As I have not entirely confined myself to one Doctor's measures, I have used the bag of shot recommended by *Dr. Bampfield*, for the protruding side of the chest; and imagining, that the Medicine prescribed by *Dr. Jarrold*, might form a good foundation to commence upon with the machinery, (if any such "disease" did exist as described and maintained to be in the cartilages, by that gentleman,) I took the burnt sponge and carbonate of soda daily, until informed by a Medical gentleman, that "later experience had proved, I might take "a bushel of it without the fear of being "injured, or the hope of deriving benefit."

I am fully aware, that I ought rather to be giving you the *results* than the *details* of my proceedings; but by giving the latter, I am in hopes of better securing success to the former; or in other words, that it may be the means of gaining some further hints upon the subject, which former results shew the hopelessness of obtaining from one quarter, and an empty purse from any other, on a subject to which, unfortunately, so little attention has hitherto been paid, that hardly two persons agree in their opinions.

Should I be so fortunate as to obtain the admission of this letter, or its subject, into your now widely spreading and valuable Journal, there might be many who have seen the like Machinery in England, together with the efficiency or inefficiency of Dr. Shaw's plans, or those of any other practitioner. In which case, the extension of that knowledge might make me, and perhaps many more, rich, without impoverishing the fund from whence it came. There may be some who have felt the blessings of being restored from this state of decrepitude to the enjoyment of health and vigour —such I would earnestly call upon to raise a finger post for the traveller who comes after them in quest of the like happiness. And there may be others having experience of neither, whose thoughts might be valuable; unless we are to suppose that the source of all talent and information ceased with the last writer.

I trust, you will pardon this long intrusion on your time and attention—its nature must plead my best apology.

Should I be favored with your assistance in my attempt, I need not say, how much I shall be,

Gentlemen,

Your very grateful & obedt. Servt.

March 20th, 1834. C.

CAMPBELL ON NIPAL AMPUTATIONS.

Mr. Bramley's notice of "Nipal Amputations," in the 5th No. of the *India Journal of Medical Science*, has induced me to add my small mite of experience on the subject, to his; more particularly as the result is somewhat different in one point, regarded by Mr. B. as the most interesting "in a surgical point of view." He says, "the fact, that the bleeding orifices of the largest arteries of the extremities can be successfully checked by means of *pressure alone* is already known to some Surgeons on the Continent." Surely the fact was known many a long day ago: the older Surgeons used invariably to stop hemorrhage wherever they met with it, "by filling the wound with lint, and applying a tight bandage over the part;" and in wounds of the radial artery and other arteries running along a bone, compression is the most obvious and easy means of stopping the bleeding. The arteries at the wrist (except the interosseal,) can easily be pressed against their respective bones, and *it*, from its size, is not likely to cause fatal hemorrhage, whether pressed or no. A more interesting circumstance attending "Nipal Amputations" is, that

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* The drawings here alluded to display a very ingenious apparatus, but not so new in its principles as to require, in our opinion, their publication to illustrate the case.—Ed. In. Jour. Med. Sc.

without pressure, or any other means being used to stop hemorrhage, kind nature in the fulness of her bounty towards distressed creatures, is all-powerful to do, what we medical men deem the work alone of our own especial province.

But cases in point put a fact on a firmer basis than broad assertion.

In September, 1832, (I have not the date) three days after the Annual Jail Delivery, Bussun, a Parbuttiah, of low caste, aged 24 years, came moaning most piteously to my door, he had just reached it, when he dropped on the ground. I came out to him and found a mere remnant of humanity; his countenance was shrunk, and wildly haggard, his lips shrivelled and black, he called loudly for water, and held up his right arm, wanting the hand; the stump was red, exeept at some points where it was covered with finely powdered dust—there was no bleeding from it—nor was it inflamed or swollen. Having heard that three or four persons had suffered amputation as a punishment, three days before, I knew from whence had come the sufferer. I gave him to drink, and then to eat, dressed his wound with a common poultice, and asked him to tell his story. He deseribed the operation to have been performed as Mr. B. has done, "when it was over, he made for the bed of a river hard by, his stump spouting blood most furiously, and his strength soon failing him he fell"—his head "went round," and here he lost his senses—the following morning he awoke from sleep, found his clothes, and the ground on which he lay, covered with clotted blood: the surface of the stump had a case of hard blood on it, and the hemorrhage had ceased, he could not rise to walk, and not till the seeond day could he gain the river where he slaked his burning thirst. The Residency is about two miles from the place of *operation*, and not till the third day did he reach me—from the time of his punishment, till I saw him, nought but water had passed his lips. He was a native of the interior of the hills, his crime was stealing a silver ornament from a child of his master's, and being far from home and friends, there was no one to look after him, nor does the breed of "good Samaritans" people the road sides in Nipal to a greater extent than in other Pagan countries. This was the first case I met with, and the only one in that year. Last season I had two of the same kind, the subjects of them were, men from remote places, and their stumps were allowed to bleed, and they to die, or live, unassisted and unattended. Three cases of this kind I can vouch for, and I believe that few, if any of the criminals thus punished, whose homes are at a distance from Cathmandu, are in any way attended to immediately after the amputation has been performed, or in time to interfere with the bleeding.

The treatment of these cases is not of much interest. I pulled down the integuments as far as they would come, and used dressings, stimulating or mild, as the state of the stumps indicated. I may mention that in all three the amputation was done at the joint, and I believe this is the invariable *practice*. In all, I found it necessary to remove the cartilage from the end of the radius and ulna, it gives excruciating pain, in the then state of the parts, but after the removal the bone throws out granulations,* which incorporate with those of the surrounding soft parts. Surgery says, it is necessary always to remove the cartilage from the end of a bone after joint amputations; it is not so, absolutely, for such a proceeding is never attempted, in the cases of the unfortunate sufferers dismembered at this place, and I have had an opportunity of seeing a good stump formed over the ends of the radius and ulna where the cartilage was untouched. I am inclined, from having seen this case, to believe that the cartilage keeps its place, and that the granulations from the surrounding fleshy parts elose over it, but do not incorporate with it.

These cases are of much interest to Surgeons, but the apathetic public attach little moment to them; and they must surely be of frequent occurrence on the field of battle, else how could the many stories of restoration to life, of persons lying among the dead and wounded, for two or three days, gain such incontrovertible credit.

It is not the business of the medical man to enquire into the proper adaptation of punishments to crimes, but he may remark on what passes before him; and if small experience is worth ought, the law that decrees the loss of an offending member, is in the crime of theft a futile one: the three persons who had their stumps tended by me, I am sorry to say, but ill-repaid the kindness. One of them on being cured, decamped with the *lotah* of a fellow-patient then in hospital; another, of my unfortunate friends, walked away with a blanket he had had the use of; and the third, stole some trifling domestic article, and forgot to return me thanks for my trouble. Again, on the same score, it is strange, that during the seventeen years of the Residency's existence in Nipal, two cases only of theft,

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* This is not, perhaps, a correct term for the produce of a bony part—if not, callus will do.

committed by subjects of this state, have occurred, and both criminals had previously paid a hand to the offended laws of their country. There is one crime, however, for the prevention of which, the dismembering law, is a sure one, and the records of Nipal punishments can shew many instances of nature's surgery, which in the result are much more at variance with our experience and maxims than are those of the amputated wrists. For *crim. con.*, with a female within the pale of Hindooism, the out-cast is punished by the law of Nipal with a loss of his offending member; and the victim of this savage law is left as much to himself, after the operation, as were the unfortunates whose cases are above related. The particulars of some cases of this kind, which I have by me, I may furnish at a future time.

A. CAMPBELL.

Nipal, 10th May, 1834.

RHEUMATISM—MAGNETISM.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—In perusing the Editorials in No 2, of your very useful publication, I was struck with your *spicy* remark regarding "simple truth," being frequently too plain for the sceptical; and, as corroboration frequently convinces the doubtful, as well as to shew that the practice of Dr. Blundell, though new to the Medical world, is an old domestic remedy, I beg to forward you the following extract of a letter from a brother in practice as a Veterinary Surgeon in England, who with a family anxiety occasionally sends hints, he thinks may be useful to me in this country. His letter is dated 7th December, 1828, and states: "I met with an ingenious old Sea Captain, a few days since, and he told me that the best remedy for Rheumatic pains was keeping two or three magnets about a person; indeed, he said, by binding three of them round a person's knee, violently affected with the disease, the pain was speedily removed—also, in three cases of Rheumatic pains of the head, it produced a similar beneficial effect. He said the remedy was recommended to him by an old brother officer, and he laughed at him heartily at the time, thanking him for his *kindness*, thinking it could have no effect; but he said when he found nothing produced relief, he was induced to give the magnets a trial, and was surprised to find them, have the effects described. He had one in his pocket, and protested he would never be without one—this is rather a singular thing, and may account for the origin of amulets." Be that as it may, the relation of this story may have been the origin of its use being brought into Medical practice, as it is not unusual for conversations to take place with the family professions.* On one of the occasions, when Dr. Blundell, Dr. Elliotson, and Dr. D. Davis were at the Veterinary College, making some unsightly experiments connected with the vis-a-tergo of the blood's motion, my brother expressed some disgust, which being overheard, Dr. Blundell turned to him, saying your name is Martin, I presume, Sir? His reply was, no Sir, you are mistaken, *I* am not the Member for Galway, which increased the laugh, but turned the table on the *Learned* Doctor. I hope in relating this anecdote, I shall not be considered stepping out of the path your periodical so essentially marked out for its course, and that its progress may not in the slightest be impeded; if you think so, commit the whole, or any part hereof to the flames of your spirit lamp, and perhaps, like a lump of salt, it may cause me to see clearly in future.

I have the honor to be, &c. &c.

TALE OF THE STUD.

Hissar, March, 1834.

OBSERVATIONS ON THE VITALITY OF THE BLOOD—No. III.

SECTION II.—*Consolidation of Blood in Arteries.*

Arteries are more highly organized, and their contents possess a greater degree of vitality than veins. In one case lymph is more freely effused when the vessel is irritated; and in the other, blood is more liable to be consolidated when inflamed, from the diminished velocity with which it circulates through veins.

Hemorrhage is retarded in a wound which has divided an artery, by its retraction and contraction into its sheath. In uterine hemorrhage the mouths of the large vessels, left open, after the separation of the placenta, contract to a small size, by the rapid reduction of the organ now emptied of its contents. In these cases hemorrhage is stopped by the closing of the open extremities of the vessels; but this, alone, is not sufficient to stop the impetus of the blood in divided arteries in other parts of the body, where nature employs various means to assist in the attainment of this object. By the retraction of the vessel, within its cellular

* So in MS.

covering, a portion of blood is arrested, and consolidated in the irregular sheath, which diminishes the opening in the vessel; and when the external wound is not large, and the branch small, it is followed by the consolidation of blood betwixt the lips of the wound, and a stop is put to its further evacuation. In a large proportion of such cases artificial means must be employed to diminish the open aperture in the vessel, which, from the low state of organization in arteries, does not heal by the usual process of adhesive inflammation. Should the wound in the artery be of considerable size, or even if small, the impetus of the circulation is so great, and the wound in the vessel so callous, that hemorrhage may recur again many days after it had been stopped, by the want of firmness, and consequent vitality in the consolidated blood betwixt the lips of the wound. This will take place more readily in proportion to the strength of the system, and the degree of local irritation. The blood of weak persons consolidates slowly and imperfectly; but coagulates or dies sooner: Messrs. Hewson and Hunter supposed the weaker the action of vessels the sooner the blood coagulated; which they contended was proved by making an incision into the femoral artery of a dog, when there were no signs of coagulation found, while the blood flowed rapidly; but as the action of the vessels was weakened it became evident. When a person dies from hemorrhage, following the wound of a large arterial trunk, a small portion of blood will be found filling up the wound in the vessel: this portion having coagulated at the time of death. The consolidation of blood cannot be depended on for closing the wound, when the artery is of a considerable size, in consequence of the impetus of the blood in the vessel. For arresting such a hemorrhage a ligature should, if possible, be applied above and below the wound, as the simplest and most effectual means of preventing its recurrence.

The internal membrane of arteries rarely inflames spontaneously, owing to its offices; but, when irritated by mechanical causes, it readily takes on adhesive inflammation. Dr. Jones* found that the effusion of lymph, from a wound made in the internal and middle coats of an artery, by a ligature, was enough to obstruct it even when immediately removed. In other cases, three or four were applied at short distances from each other, so as to produce a sufficient secretion of lymph to cause the obstruction in the vessel. He gives a figure representing the carotid artery, which had thus been obstructed by the momentary application of four ligatures, and it affords a beautiful example of the effects of strong irritation applied to the artery of a horse two days before it was killed. In that part of the artery, upon which four ligatures had been applied coagulated lymph, adhered to the internal surface of the artery, so as to form but one substance with it; completely filling up its canal, even projecting a little beyond the points of adhesion, and intermixing, above and below, with the fluid vital blood. "This coagulation filled up the artery for some distance above and below the lymph, but did not adhere to the internal membrane of the vessel."* Such is Dr. Jones explanation. It would appear that the irritation was so severe as to produce a secretion of lymph from the wound in the internal and middle coat of the artery, and a consolidation of the blood, which extended above and below the part. Where the ligatures had been applied the consolidated blood had changed to a hard white substance, from the inflamed state of the coats of the artery at that part; and above and below it remained in its state of recent consolidation. This success led Dr. Jones to conjecture that in some surgical cases, the ligature might be removed as soon as the middle and internal coats had been divided. But there are two circumstances that militate against its employment—1st, the impetus of the blood in arteries preventing the formation of consolidated blood, and the danger of the operation not succeeding; which, 2dly, is more liable to occur in the human subject, than in the horse, as the arteries of the former are less subject to the necessary degree of inflammation, and the blood to consolidation. On this account it has not been found to answer; as the presence of the ligature is not only necessary to arrest the impetus of blood—but also, in most cases, to keep up a gentle irritation, which the application of a small ligature will effectually do.† When a ligature had been applied for an hour or two, Mr. Travers found the vessel blocked up with lymph, mingled with coagula of blood.‡ It requires from 10 to 24, or 48 hours, according to the constitution of the person, &c. to complete the consolidation of blood in the vessel; and a few hours will not be sufficient to obliterate the artery. Removing

* On Hemorrhage. London, 1805, Ch. 3.

* L. C. p. 128 and 229.

† Mr. Dalrymple's experiments, as stated by Mr. Travers in his interesting Essay on the Ligature of Arteries, leads to this conclusion.—*Med.-Chirurg. Trans. vol.* 4, *p.* 442.

‡ L. C. v. 6. p. 633.

the ligature at this period, as Mr. Travers and Scarpa recommend, would be attended with danger from the tissue of the vessel being softened by its state of inflammation, and liability to hemorrhage.* By allowing the ligature to remain until removed by ulceration, which will be completed in 8, 15, or 20 days, this danger is much diminished. If the artery be small, its organization is higher, and the ligature is discharged by ulceration about the fifth or sixth day.

When a living vessel is tied with a ligature, the internal and middle coats are divided; but the kind of cut will vary with the size of the ligature employed. A large or flat ligature makes a bruised and lacerated wound, which is more disposed to take on the suppurative and ulcerative inflammation than the adhesive form; this tendency is increased by the greater irritation which the larger size of the ligature produces.† When the artery is healthy, a small ligature that will make an incised cut in the internal coats, and cause little irritation by its presence is to be preferred; but in a weak person, in whom the artery possesses a low degree of vitality, and is extensively ossified, a flat ligature may be preferable. By thus drawing the ligature less tightly together so as to avoid the irregular division of the small plates of bone, a necessary increase to the irritation is produced, by which the adhesive inflammation will be promoted, and tendency to secondary hemorrhage prevented. In a man, fifty-nine years of age, bleeding took place nearly a month after amputation, from the ossified femoral artery; and Mr. Lawrence was, therefore, obliged to expose and tie the vessel again for the suppression of the hemorrhage, when he found a hard tube, which cracked immediately as the ligature was tightened: the bleeding, however, never returned.* In this case the slow progress of adhesion, after the former operation, was not sufficient to prevent hemorrhage; but, assisted in producing the necessary degree of inflammation, which in such patients is promoted, by a large ligature brought less tightly together, and by increasing the irritation so as to ensure the necessary adhesive inflammation, without splintering much the tube of bone.

Where a ligature has been applied to an artery, the union of the opposite sides takes place through the medium of the secreted coagulated lymph from its wounded surfaces, and consolidated blood from the irritation in the part. This adheres at its base by the effused lymph to the internal coat of the vessel, and beyond the point it remains unattached, and of a conical figure, as it extends from the part, irritated. In proportion to the extent and firmness of consolidated blood, will the fear of secondary hemorrhage be diminished. By the irritation of the ligature on the coats of the vessel and its contents, the blood consolidates round the divided coats of the artery; and as the irritation continues, new layers are deposited upon the consolidated portion, until a pyramidal form is given it, from the diminished irritation, as consolidated blood forms at a greater distance from the irritating cause, where it is surrounded by liquid blood. Such changes are locally produced in the blood by an increase in its vitality; as has been already stated after being increased to a certain degree, changes into an uniform solid mass in concentric layers, of a dark red colour externally, and becomes pale and harder towards its centre. These vital changes are produced by an effect exactly opposite to that of coagulation, or the chemical changes in principles of the blood.

By this consolidation of blood, a firm barrier is formed to the extravasation of blood; strengthened by the lymph which the irritated coat of the artery had thrown out, uniting its divided sides, and the base of the consolidated pyramid of blood. As the irritation of the ligature continues, the inflammation passes to the ulcerative form, by which it is separated, and thrown off without fear of hemorrhage.

In some cases, from the weakness of the general system, or vessel, the necessary adhesive inflammation may not take place. Such local weakness may be produced by its external coat having been

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* Mr. A. C. Hutchison applied a double ligature to the femoral artery for a popliteal aneurism. The ligatures were tied with loops, or slip-knots, about a quarter of an inch of the vessel being left undivided between them. All that now remained of the pulsation in the tumor, was a slight undulatory motion. Nearly six hours having elapsed from the application of the ligatures, the wound was carefully opened, and the ligatures untied and removed, without the slightest disturbance of the vessel. In less than half a minute afterwards, the artery became distended with blood, and the pulsations were as strong in the tumor as before the operation. Two fresh ligatures were applied, hemorrhage afterwards came on, amputation was performed, and the patient died.—*Pract. Obs. in Surgery, p.* 102.

† See Mr. Lawrence's excellent practical remarks in the 8th vol. of the Med. Chirurg. Trans. p. 490.

* L. C. vol. 6, p. 193.

dissected from the neighbouring parts, by the extensive destruction of its coats or neighbouring parts, by the rugged nature of the wound in the internal coat of the artery, by the presence of a large sized ligature; and such a degree of inflammation produced, as passes to the ulcerative stage, before a sufficient quantity of lymph and consolidated blood is formed to resist the force of the circulating blood, and produce what is called secondary hemorrhage. This may be caused by the ligature having been applied to the trunk of an artery, near the point where a large branch joins it. For this reason the ligature should be placed round an artery at some distance from such a branch, so as to allow the secretion of lymph, and a column of quiescent blood to assist in the formation of the consolidated portion, without being disturbed by the flow of blood near it. The distance to which consolidated blood extends after the application of a ligature round the trunk of an artery, will depend upon the constitution of the person, the degree and extent of irritation produced, the number, size and acute angle at which the blood flows through the collateral branches, and distance from the heart. Hence it is more extensive in the trunk and on the side of the ligature next the heart. The great additional security thus obtained, by placing the ligature at some distance from considerable branches, is exemplified in the case related by Mr. Travers,* in which a ligature had been placed upon the external iliac, between the epigastric and circumflex iliac arteries. The ligature was in contact with the former at the angle which it makes at its origin from the iliac. There ulceration had taken place, and a fatal hemorrhage ensued. No "coagulum" was found in the iliac trunk, although the operation had been performed several days before, and the circulation through the epigastric had continued. The artery was impervious, and united by lymph at the seat of the ligature.

The general vitality of the blood, and its local increase, by the irritation of the ligature, secretes lymph into the tissue of the vessel, and on its internal surface, which firmly unites the consolidated blood to the vessel, and thus prevents hemorrhage. The discovery of an irritant, which would produce such a degree of inflammation in an artery, as to ensure the consolidation of its contents, is a point of much importance, and one which I do not despair of seeing found out; as it would in many cases prevent the necessity of having recourse to the knife, and the danger attending an operation to secure the artery by means of the ligature. Pressure has sometimes been employed for this purpose, and when applied locally for a considerable time over an artery so as to retard the blood, and irritate the vessel, it has succeeded. But, as this method is tedious, uncertain, and painful, it is very rarely employed by British Surgeons. By rest, antiphlogistic remedies, and pressure applied to the artery which feeds an aneurism, and an irritating substance applied to the sac—the impetus of the blood may be diminished, consolidation promoted in the sac, and the cure accomplished.

As the irritation which produces consolidation in the blood diminishes, other vital alterations take place in it. Where the irritation had been severe, it changes to a pale tough substance, and here the union with the vessel is intimate, beyond which the blood still retains its firm red homogeneous appearance; but, when longitudinally divided, the pale hard appearance in the interior is found extending farther from the irritated part. The consolidated blood becomes reduced in size, but still retaining its figure: has a hard fibro-cartilaginous appearance, is firmly united to the vessel, and is more or less vascular. As the inflammation disappears, the consolidation of the blood diminishes, and the vessels may again become pervious by an aperture being left in the remains of the consolidated blood. This change is of practical importance, as it proves the necessity of retaining the ligature until the ulceration has thrown it off, when it is required to answer the permanent closure of the vessel; when this is not necessary, the removal of the ligature before ulceration, may admit of the continuance of a partial circulation in the part.

In some cases the blood is so completely diverted from the vessel, that the consolidated blood, after slowly diminishing, may at last be completely removed, and the vessel thus left open; as in the cases described by Professor Thomson in his excellent lectures on inflammation.*

* Loc. Cit. p. 656.

* Loc. Cit. p. 556.

In other cases such a complete obliteration in the vessel is not required. When there is much blood in a semi-consolidated state in an aneurismal sac, it is of consequence to tie a ligature round the trunk of the artery, at some distance from the sac, in order to stop the impetus of blood and permit consolidation in the sac, while it admits a small quantity of vital blood in order to prevent its contents coagulating, and thus causing dan-

The means by which nature removes sphacelated parts without the occurrence of hemorrhage, is explained by the surrounding contiguous parts being always affected with inflammation before the death of the part. As this inflammation is of an adhesive nature coagulable lymph is thrown out into the interstices of the cellular tissue, and a consolidation of blood in the living portions of the arteries and veins takes place; which, on the separation of the dead from the living part by ulceration, prevents any bleeding occurring. As these effects of irritation extend to different distances beyond the sphacelated part, according to the strength of the individual, or degree of the irritating cause; it not unfrequently happens that no hemorrhage occurs when amputation has been performed at some distance above the division of the dead from the living parts. Mr. O'Halloran removed a limb in this state four inches above the Sphacelated part, and no bleeding occurred. M. Petit appears to have been the first to have noticed this remarkable fact. "When a gangrened limb," says that celebrated Surgeon, "is cut off in the dead part, no hemorrhage occurs, because the blood is coagulated for a great way in the vessels. The clot is white and firm, and consists of coagulable lymph; as seems proved by the following observations:—M. Martial, Surgeon Major of the Hospital at Fournay, in 1694, cut off the legs of a poor woman affected with gangrene in the part which was dead. No hemorrhage followed amputation of the first leg; nor would it in the second, had not the Surgeon, after cutting off the limb, pulled out, from the extremity of the artery, a round, firm, and white clot of about three inches in length. The column of blood had pushed it a little forward, for it projected seven or eight lines from the vessel. The canal of the artery being no longer shut up, blood flowed into it, but was stopped in the usual way".* We have several examples on record of limbs amputated on account of gangrene, in which no hemorrhage occurred although the operation was performed a considerable way into the living parts; because the clot was not confined in these cases to the dead part, but was continued forward into the living, as far as the inflammatory disposition extended. The accurate Hunter supposed that a disposition to "coagulate" is given to the blood by the inflamed state of the vessels; and thus he accounts for the coagulation of blood in the artery of a mortified limb. Hemorrhage being thus prevented, the purposes for which these consolidated portions of blood were formed are accomplished; the inflammation slowly diminishes in the part, and the size of the consolidated blood. The changes which take place in consolidated blood have been already stated, and its altering to a white appearance explains the manner in which vessels are afterwards found filled with what has been supposed to be coagulable lymph.

From the force with which blood flows through arteries, it consolidates when a ligature or wound has been made in them, or when the vessel has been irritated in a certain degree. When this impulse of the blood has been diminished in the cavity of an aneurism, the irritation in the diseased part enables nature to strengthen the sac by the formation of layers of consolidated blood. When this irritation is considerable the layers may be deposited in such quantities as to fill up the diseased sac, and thus the cure of the aneurism may be accomplished. Cases of this kind have been related by Corvisart† and by Hodgson.‡ The experience of these able pathologists proves that aneurisms in the trunks of arteries may be cured by the formation of consolidated blood, which leaves the vessels pervious. When this natural cure of an aneurism takes place in a branch, its higher organized tunics than those of large trunks is the cause of the vessel being usually filled up with consolidated blood, for some distance beyond the aneurism.§ In general,

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gerous irritation. In like manner the operation proposed by Dessault, and successfully performed by Mr. Wardrop, of securing the artery beyond (distid,) the aneurism at some distance from the sac, in order to allow a small quantity of blood to enter it, and even to admit of branches enlarging between the sac and ligature. In all such cases, previous depletion will assist in preventing the bad effects of the impetus of the blood in the sac. The following case proves that a complete stop to the circulation in the artery is not required for curing an aneurism. Mr. Soden tied the iliac for an aneurism of the femoral artery; the patient was cured, but about two years after, he died suddenly of aneurism of the aorta. On examination of the thigh, the aneurismal sac, though very small, was still pervious; the circulation had gone on through the artery.—*Shaw's Manual of Anatomy.*

* Memoirs of the Royal Academy for the year 1732; as referred to in Thomson's Lectures, p. 553.

† Essai sur les Maladies du Cœur, p. 313.

‡ Diseases of Arteries; &c. French Translation, p. 157.

§ By the formation of consolidated blood in the sac a spontaneous cure of the aneurism may be obtained. Mr. Blagden, Surgeon at Petworth, was consulted by a man of

however, while the consolidated layers of blood strengthen the cavity of an aneurism in one part, the force of the blood prevents the efforts of nature from strengthening the whole sac, by a sufficient deposit of consolidated blood. Where the irritation is too great for the adhesive termination ulceration is the consequence, a gangrenous spot forms, and on its separation a fatal hemorrhage occurs.

When the sacs of such aneurisms are examined, the consolidated blood lining its cavity is found in layers which had been deposited at different times, and consequently differ in colour and consistence. One layer is found to be consolidated blood in its more recent state, another is pale and hard, and a third has the appearance of cartilage. Not unfrequently this is partially changed to bone, generally of an irregular figure, and imbedded in the changed consolidated blood. Such varieties are produced by the gradual vital changes in the consolidated blood.

When the aneurismal sac is near the heart less blood is consolidated from the force with which the blood is propelled through it; and on dissection in such cases the aneurismal sac is often found empty, its walls thickened, and the surface smooth and shining.

In some cases the aneurismal sac may be so large, and the patient's constitution so weak, that the blood coagulates in its cavity and irritates it as a foreign body; while from the irritation so produced, the blood of the artery which feeds it consolidates and fills up the vessel. The sac suppurates, and the coagulated and consolidated blood it had contained is thrown off. In this manner a permanent cure may be accomplished; but, in a large proportion of such cases, the irritation in the sac destroys the person, weakened by previous disease.

A portion of blood may coagulate in a large sac when the trunk of the artery has been tied with a ligature, for curing an aneurism. This acting as a foreign body produces such a degree of irritation as to inflame it, and extending to the artery, which feeds it, produces a consolidation of blood which fills up the vessel. The aneurism swells, becomes very painful, and red; with a considerable degree of symptomatic fever. When opened, broken down coagula of blood, mixed with pus is evacuated, with much relief to the person's sufferings; and produces a diminution of the symptomatic fever. On this account the aneurismal tumour when large, or the person weak, should be carefully watched for a considerable time after the artery has been tied; and as soon as it is discovered, that much irritation is present in the sac, it should be opened, and its contents evacuated. When inflammation of the aneurismal sac takes place spontaneously, a radical cure may be accomplished; by its obliteration, and that of the vessel. In a large proportion of such cases, however, the person weakened by the distressing disease, is destroyed by the severity of the symptomatic fever which the local irritation produces.

In the same manner the largest trunks of arteries may be obliterated, by local irritation consolidating their contents. It is only when the vessel is so diseased, and the disposition of the part to inflammation is considerable, that such effects are produced, as in general the impetus of the blood prevents such changes. In peculiarly favourable circumstances, consolidation of blood may occur in large arterial trunks near the heart. Dr. Graham states that in Messrs. Pattison and Russel's Museum there is a preparation where the aorta is plugged up, by a laminated "coagulum," just above the bifurcation of the iliacs, into both of which this substance extends.*

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about fifty years of age, tall and muscular, who had his humeral artery wounded in opening the basilic vein. The blood was stopped at the time by strong compression. An ecchymosis extended itself generally from the shoulder to the wrist; where the aneurismal tumour formed, and in six months it had increased to the size of a cricket ball, hard, with a strong pulsation in it. The arm was oppressed, cold, shrunk, pulseless, and, as the patient expressed it, painfully lifeless. As the tumor seemed to be diminishing, Mr. Blagden ordered the arm to be rubbed with a flesh-brush, and the patient to refrain from all exertion. The arm grew warmer, a sensible tremulous pulse began at the wrist, the tumour gradually diminished, and the strength of the pulse at the wrist increased. In eight or ten months, the tumour in the bend of the arm was reduced to the size of a hazel nut, while the pulse at the wrist was quite restored, and the arm, as full and fleshy, and as capable of as powerful exertions, as the sound one.—*J. Bell's Principles of Surgery, v.* 4, *p.* 441, *new edition.*

M. Petit has related a case of aneurism in the right carotid artery, in which a spontaneous cure was obtained (Acad. des Royale des Sciences de Paris, An. 1765.) Dessault dissected a similar case in which a spontaneous cure had taken place in a popliteal aneurism, with an obliteration of the trunk of the artery.—*(Journal de Medicine de Paris, tom.* 71, *p.* 431.*)*

* Med. Chirurg. Trans. vol. 5, p. 297.

Stenzel,* Mekel,† and Stoerk,‡ have related other cases of obstruction being found in the aorta. In Dr. Graham's case§ the aorta was impervious from a constriction immediately below the "canalis arteriosus;" and the case related by M. Paris,‖ in which the aorta was contracted immediately under its arch, to the size of a common writing quill, was probably first obstructed by consolidated blood. In the former case the coats of the artery were of their usual thickness, and its cavity of course extremely small; and as the arch of the aorta above this constriction was but very slightly dilated, the parts below had lost nothing of their natural size. These cases were probably examples of consolidation of blood filling up the vessel, and its gradual contraction with that of the vessel as the disease disappeared, when the consolidated blood was absorbed, leaving the vessel more or less pervious. Dr. Baillie found two solid tumours situated in the carotid arteries; the cavities of which were completely filled with coagulated (consolidated) blood; which adhered firmly to the inside of the vessels, and consisted of distinct layers like that in the sac of an aneurism.¶

I shall conclude these remarks, by a few practical observations on applying ligatures to arteries.

1st.—Ligatures to arteries ought to be applied at some distance from the point at which a large branch unites with the trunk.

2d.—The artery should be as little disturbed in its natural situation as possible, while securing it.

3d.—The ligatures to be used, should vary in size and figure. In the young and strong, when a small branch is to be secured, a fine ligature should be chosen. In the old and infirm, when the vessel is of a large size, and expected to be found ossified, a flat ligature is to be preferred; and it is to be tied with less force than usual, so as to avoid dividing the brittle deposit of bone, and the consequently too rapid ulceration, and sloughing of the irritated part.

4th.—One ligature is sufficient, and it should be allowed to remain until removed by the ulcerative process.

5th.—When the aneurismal sac inflames producing fever, &c. it ought to be opened early, and its suppurating contents evacuated.

6th.—When secondary hemorrhage occurs, the artery should, if possible, be secured at some distance, nearer the heart, from the bleeding part; and where the vessel is in a more natural and healthy state, adhesive inflammation will more readily take place.

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* Dissertatio de Steatomatibus Aorta.
† Mem. de la Acad. R. de Berlin, 1756.
‡ Ann. Med. II. p. 171.
§ Med. Chirurg. Trans. vol. 5, p. 287.
‖ Jour. de Chirurg. de Dessault, tom. 2, p. 17.
¶ Trans. of the Soc. for the Imp. of Med. and Sur. Knowledge, vol. 1, p. 119.

REMINISCENCES OF FRENCH SURGERY—No. III.

December 16. Dupuytren removed a diseased portion of the humerus with great dexterity. The man had received a fall and a severe contusion on the right arm, just below the deltoid muscle, or rather at its lower extremity. The consequence was a fistulous opening on the outer, and also on the inner part of the arm. He examined the bone on either side with the probe, and found that the outer was necrose and exfoliating, but the inner side was sound. He therefore resolved upon an operation, and laying open the muscles, in a few minutes extirpated the diseased bone with the trephine. The man seemed to feel very little pain.

Dupuytren is no doubt a capital operator, but whilst Lisfranc retains his admirable faculties, he cannot be said to be the best in Paris, though that distinction has often been assigned to him. He is highly popular. His amphitheatre is always crowded; his private practice too is extensive. There is, however, some eccentricity about him as may be inferred from the following curious fact. A loaf of bread is, I believe, a perquisite, or the right of the chirurgien en chef at the Hotel Dieu, and, possessing so high a name, a Baron to boot, it is rather amusing to see him invariably claim that right every morning, and walk with it openly under his arm from the Hospital to his own house in the Place du Louvre. At least I never saw him retire without his loaf!

In my notes at La Charité, I find a case of a highly instructive description with reference to the mistake of a very clever Surgeon. A woman was brought in with an aneurism on the left arm produced by a sage femme in bleeding her. Bleeding is the vocation of midwives in France. She had accidentally punctured the artery. Compression was tried to obliterate the channel, but in vain; the aneurism burst out below the bend of the arm, and manifested itself in several detached black prominences. The object now was to tie a ligature on the

brachial artery, which Roux endeavoured to do, keeping the fore-arm relaxed, or a little bent. Having made an incision about three inches long, he took up the nerve, instead of the artery, the woman instantly feeling a violent pain along the hand. The ligature was, upon this occurrence, immediately thrown off, and the artery secured, but not tied for some time, the Surgeon being still doubtful whether he was right or not, and this uncertainty kept the operation under hand about three quarters of an hour. At length he drew the ligature tight, constantly feeling for the pulse at both wrists. The patient had fainted away several times, which necessarily interrupted the pulse, and interfered with the operation. There were two ligatures as usual, which were composed of thin tape. This was indeed an instructive lesson, as it shewed how possible it is for a man of high eminence in his profession, to be mistaken; although the mere student, who is only familiar with taking up the artery in the dead body, may think an error impossible, especially when the living pulsation directs the finger. But in this case there was a cessation of pulsation from syncope. Roux, however, might have waited till the syncope subsided before he actually drew the ligature tight; particularly as this was not his first mistake, but the second, in which a sage femme had been in fault, and in which he had taken up the nerve. The other case occurred only about a month before.

The extirpation of a carious heel by Roux at La Charité, was a terrible operation. The man was from Jersey. He had suffered from the disease two or three years, and had been in the Hospital about two months without obtaining any relief from the agony he suffered. There was no external ulcer. The first incision was made laterally round the bottom of the heel, the second longitudinally from the back of the heel towards the sole of the foot, down to the bone. Having thus made the crucial incision, Roux dissected back the angular flaps. He then scraped off the periosteum, and commenced with a gouge, or chisel, and a leaden mallet, to chip away the diseased part of the os calcis; and every knock was answered by a heavy groan from the sufferer. After the whole of the carious portion was removed, the hollow was filled up with loose balls of coarse lint; the edges of the incised parts were also covered with lint; and the whole bandaged over a plaster of simple ointment. The intention was to let the wound heal from the bottom. I saw him again a few days afterwards. He was in good spirits. He had only suffered from a slight attack of fever, but made no complaint of any pain in the heel, excepting when the dressings were renewed.

Paris, undoubtedly, presents to the medical student facilities and advantages not available in any other country. It is almost superfluous to say, that the opportunities for anatomical study particularly, are very great. The schools are numerous, and abundantly supplied with subjects. At La Pitié the dissection halls often display ranges of fifty at once, under the examination of students from all parts of the world. The cost of each, fixed by the State, is, I think, only a few francs. The expence of lectures too is comparatively trifling. A medical man and a visitor has only to intimate his wish to the Professors to attend their hospitals and clinical expositions during his stay, and a free ticket is immediately presented to him. At the Hotel Dieu, La Pitié, and La Charité, the most distinguished for operations, every accommodation is politely given to him to obtain the full benefit which those excellent institutions are calculated to afford, directed as they are by men of such eminent talents and skill.

I have no data from which I can compare the mortality in the London and Paris Hospitals, but in those of the latter the number of deaths seems to be very large. The *Hotel Dieu* has upwards of twelve hundred beds. The mortality, taking the total of ten years, is calculated at about 22 per cent. *La Pitié* has six hundred beds, and, in the same calculation, the deaths are about 19 per cent. *La Charité*, 13 per cent. *St. Antoine*, 20. *Cochin*, $13\frac{1}{2}$; and *Necker*, $16\frac{1}{4}$. These reports average to a fraction, 17 deaths in every hundred patients admitted into the hospitals above enumerated. In looking at this formidable result, however, it must be remembered that these institutions do not receive children, incurable cases, nor individuals labouring under chronic diseases. But the military hospitals do not present such an appalling mortality as the civil. *Val-de-grace*, of which the celebrated Broussais is the principal physician, gives one in thirty-four, or about 3 per cent. of deaths. This is greater mortality than we have in India. On referring to the Superintending Surgeon's Returns, I find that in this division, which is thought the least healthy of any under the Presidency of Fort William, 18,416 Europeans were under treatment in the military hospitals, &c. during four years, viz. from 1830 to 1833 inclusive, of which 395 died. In the Native Corps, during the same period, 46,893 were admitted into the hospitals, of which 774 died. Among the Europeans the average of deaths, therefore, appears to be about 2 per cent., and among the Natives about $1\frac{3}{4}$, a comparative result

that will, considering the climate of Bengal, probably occasion some surprize. It is about 1 per cent. less than the mortality at the military hospital, *Val-de-grace*, in Paris.

JAMES ATKINSON.

Barrackpore, June 1, 1834.

HOTEL DIEU, PARIS.

CLINICAL LECTURE ON ARTIFICIAL ANUS, AND ITS CURE WITH THE ENTEROTOME. BY BARON DUPUYTREN.

With an Engraving of the Instrument.

Artificial anus, or as it is properly called *anormal* anus, is an opening communicating between some point of the abdominal parietes and any of the contained viscera, by which either the whole, or a portion of the fœces is involuntarily discharged. This disgusting malady always dangerous, and frequently mortal, may be produced by a variety of causes, the chief of which is the accident occasioned when inflammation and gangrene attack an irreducible hernia. In this case, we find, succeeding to the symptoms of strangulation and intense inflammation, a diminution in the strength and quickness of the pulse, the extreme anxiety of the patient is abated, the tumour becomes less sensitive, acquires a livid tint, and at last the contents of the abdomen escape by one or more points, when eschars detach themselves.

Wounds of the intestinal tube are also a frequent cause of artificial anus. When the wounded intestine protrudes, it may form attachments to the edges of the external opening, and thus by preventing the effusion of fœcal matter into the abdomen, give rise to the accident of which we speak.

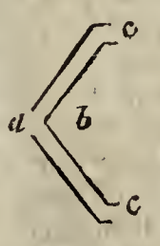
When once established, artificial anus becomes not only a source of annoyance and disgust to the patient by the constant and involuntary discharge of the fœcal matter, but also brings with it other consequences of a more grave and dangerous character. The manner in which the intestine is fixed to the parietes of the abdomen always impedes or disturbs the natural functions of the bowel; the contents of the stomach and intestines are discharged at intervals succeeding each other more or less rapidly, and, above all, the diminished extent of surface to which the alimentary matter is exposed, necessarily occasions a diminished absorption, the function of nutrition is disturbed or interrupted, and the wretched sufferer is reduced to the last stage of weakness and inanition.

The external orifice by which the fœcal matter escapes, usually presents the appearance of a round hole, varying in diameter from a few lines to one or two inches. In most cases the edges of this aperture are thick, concave, and continuous with the mucous membrane of the intestine, the points of continuity being marked by a red circle, and the surrounding skin, which is usually puckered, affords marks of irritation or excoriation, produced by the constant efflux of the stercoral matter.

Occasionally we find a different disposition of the orifice. When a portion of intestine, received into a hernial sac, has been attacked by gangrene in different points, it is sometimes covered by a hard red cicatrix, which presents several openings for the discharge of matter, like the spout of a watering-pot. At other times, especially when the artificial anus is the consequence of the stercoral abscess, the openings through which the fœces escape are placed at some distance from the original point of communication between the abdomen and intestine; the fistulous tracts are extremely hard, and always lined by a mucous membrane of new formation, continuous from the abdominal wound to the inner surface of the intestine.

The edges of the intestine surrounding the opening are found attached more or less firmly to the parietes of the abdomen. From this point of attachment, two portions of the intestines pass backward into the abdomen, sometimes running parallel, at other times crossing or twisting round one another, or forming by their separation an angle more or less acute, until at length they are lost in the rest of the abdominal tube. When a small portion only of the calibre of the intestine has been destroyed, it seems scarcely to touch the abdominal parietes, and the angle formed by the ends of the intestine passing inward to gain the uninjured portion of the canal, is very obtuse. Hence the septum produced by the protrusion of the posterior wall of the intestine, exactly opposite the artificial opening, is short, and separated from this orifice by the diameter of the canal, as thus—(*Fig.* 1.)

Fig. 1.



a, The artificial opening in the intestines.

b, The short septum produced by the projection of the posterior wall of the intestine.

Fig 2.

c c, The ends of the intestine passing into the cavity of the abdomen to be continuous with the tube.

When the loss of substance has been considerable, the angle becomes more acute, and the septum projects so as nearly to touch the level of the abdominal surface. This disposition is still more manifest, when the whole calibre of the intestine has been destroyed, or when it has suffered a loss of several inches. In this case the two extremities of the intestine advance parallel with one another, and the projection of the septum is nearly proportionate to the original loss of substance.—*(Fig. 2.)*

This difference of disposition necessarily produces in a certain time changes more or less marked in the two portions of intestine. The superior portion, continually subject to the passage of alimentary or fœcal matter, not only preserves its original form and function, but frequently receives an excess of development and vital energy. The lower portion, on the contrary, cut off from the exercise of its functions and the influence of its accustomed stimuli, gradually contracts and decays, losing its solidity and muscular development; and after a few years, the difference becomes so striking, that the superior part seems to belong to an adult, while the lower portion might well pass for the intestine of a child. We have, however, to remark, that this degeneration of the lower portion of the tube never passes to a state of obliteration. The internal membrane, placed in contact with itself, secretes a whitish, thready matter, which may remain for months or years in the intestine, without alteration. However, M. Begin observed some years ago, at Val de Grace, a fact which shows that this obliteration of the anal portion is not altogether impossible. The body of a man, who, for forty years, had been affected with artificial anus, was examined at this Hospital. The opening of the lower portion of intestine was completely obliterated, and the part nearest the artificial anus was reduced, for the space of six or eight inches, to a perfectly solid chord, without any trace of internal cavity.

When we examine internally the two ends of the intestine, we find them attached by their internal angle to a portion of the mesentery, which passes back from the fixed part of the gut towards the lumber vertebræ. This chord of mesentery has a constant tendency to draw back the fixed portion of the intestine from the point of the abdomen to which it is attached, and to render it again loose in the cavity; however, this retractive effort of the mesentery may, under the influence of horizontal position, &c. be carried too far; for, in some cases, it has been sufficient to destroy the adherences which united the intestine to the walls of the abdomen, and produce a fatal effusion of stercoral matter in that cavity.

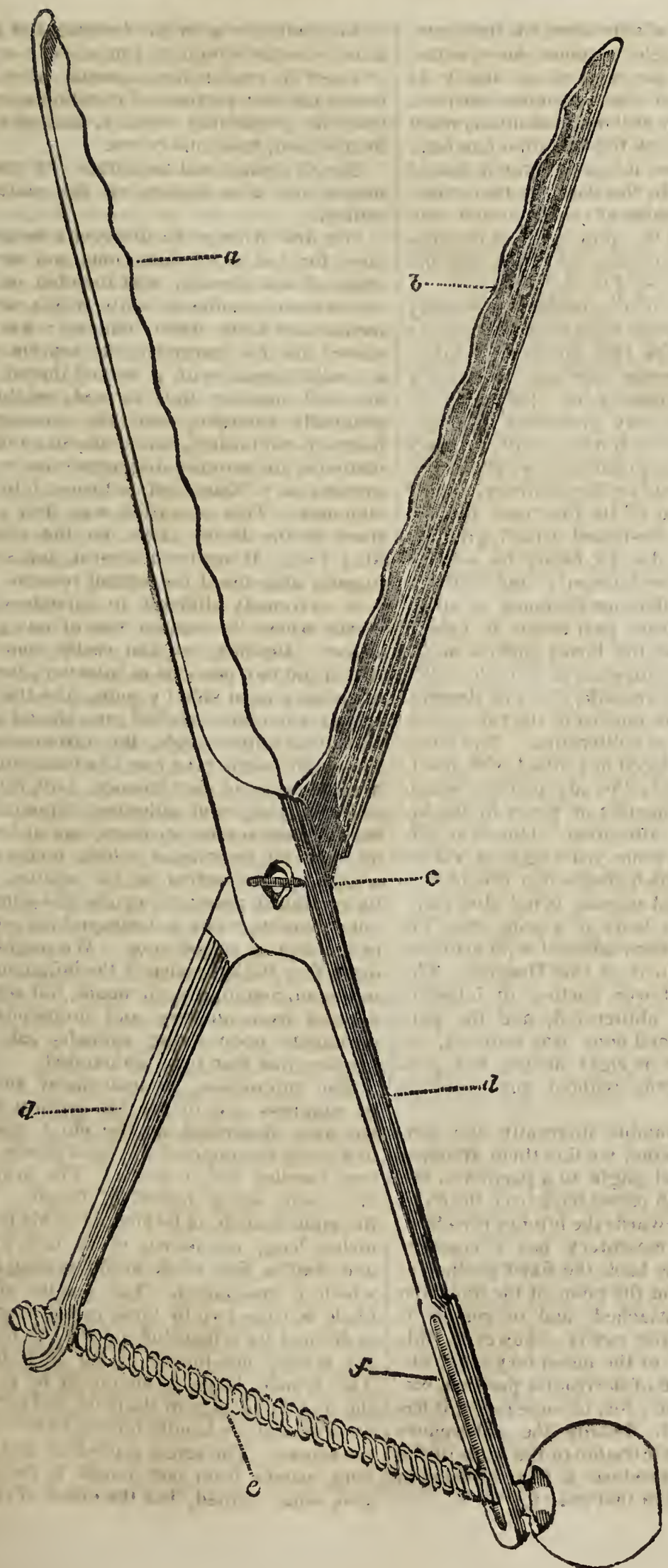
The indications for the treatment of artificial anus are simple and manifest, viz.

1st.—To render the communication between the two portions of intestine so easy, that the fœces may readily, and of their own accord, take this course.

2d.—To effect and encourage by proper means the cicatrization of the external orifice.

Our first attempt to discover a means of cure for the more dangerous and severe cases of this disease, was founded on the well-known readiness with which serous membranes unite when inflamed; we conceived that by traversing the septum with a needle armed with a waxed thread, the artificial opening thus formed, might be gradually enlarged, and the passage of fœces re-established, while adhesive inflammation of the serous lining membrane would prevent any chance of effusion into the abdomen. This operation was first practised in the Hotel Dieu, on the 17th of May 1813. It was unsuccessful, and subsequently abandoned for several reasons. It was extremely difficult to introduce the needle where the septum was of any great extent. Besides, we can easily conceive, that if the two portions of intestine, instead of being placed side by side, like the barrels of a double-barrelled gun, should separate at an obtuse angle, the introduction of the needle might give rise to a fatal effusion into the cavity of the abdomen. Still, relying on the principle of adhesive inflammation between the serous surfaces, we at length hit upon an instrument which might seize a considerable portion of the septum, and, by continued pressure, excite this adhesive inflammation, while it destroyed the portion of the septum seized upon. We might, indeed, fear the extension of the inflammation to the surrounding peritoneum, but reasons derived from analogy and numerous experiments upon living animals, led us to suppose this fear to be unfounded.

The enterotome, or instrument suitable to compress and divide the septum which we have described as the chief obstacle to a cure, is composed of three pieces, viz., two handles and a screw. The branches are about seven inches in length. One, the male branch, is formed of a blade four inches long, one-fourth of an inch broad, and half a line thick at its cutting edge, which is undulated. The handle of this blade is from two to three inches long, and is divided by a longitudinal slit, to receive the screw, one-fourth of an inch broad. The female blade is hollowed to receive the undulated edge of the male, and presents an orifice in its handle for the extremity of the screws. The screw is one inch and a half long, passes from one handle to the other, and, when turned, has the effect of closing



a, The waved line formed by the male blade.

b, The hollow in female blade to receive *a*.

c, The articulation and pivot of blades.

d d, The handles of the enterotome.

e, The screw.

f, The slit in the male handles in which the screw ascends as it is tightened.

the blades. The action of this instrument, when applied, is readily conceived. It does not act as a cutting instrument, but comprising that portion of the intestine with which it is in contact, produces its mortification and detachment, while the inflammation excited is just sufficient to agglutinate the divided edges, without entailing any dangerous consequence.

We are now to establish some principles relative to the application of the instrument. Our first care should be to discover the two ends of the intestine, to determine their direction, and the precise extent and situation of the septum by which they are divided. The upper orifice is generally found without any difficulty, but it often requires days of patient examination to discover the lower one closed, as it generally is, by the contraction of the canal, or concealed in the bottom of the external wound. When the two orifices have been discovered, we may proceed at once to the application of the instrument. The patient being placed on his back, the Surgeon takes one of the blades in the right hand, and conducts it on the index finger of the other hand into one orifice of the intestine; the depth to which the blade is to be pushed, will vary from one to four inches, according to the extent of the septum to be divided. The second branch is now to be introduced in the same manner, articulated with the former, like a midwifery forceps, and fixed by means of the screw, which is at once to be screwed as tight as possible. We know by experience that the best way to avoid inflammation, is to destroy the life of the part as quickly as possible. The enterotome, which at first remains firmly fixed in the wound, begins in a few days to get loose, and generally is quite detached on the eighth day, bringing between its branches a portion of substance from four to six inches long, which by maceration, we recognise as intestine. This destruction of the septum establishes a free communication between the upper and lower portions of the bowel, and it is not rare to see the natural passage of the fœces take place, even before the separation of the instrument. When the enterotome comes away, the external orifice contracts in a very rapid manner, and we only require the cicatrization of the wound to effect a complete cure; but this, unfortunately, is the most difficult part to fulfil; the fœces may have resumed their natural passage, yet we find a small fistulous opening, giving, it is true, little or no inconvenience, but still a source of uneasiness to the patient. We have tried every means in our power to effect the complete obliteration of these fistulous openings, without having obtained the success which was to be desired, and now content ourselves with a pad and compress, retained by a common hernial bandage, leaving nature to effect the obliteration of the fistula, which in truth, is accompanied by no inconvenience.

During the application of the enterotome, we ought not to forget such means as are generally calculated to favour its action; such as strict diet, rest, fomentations, and frequent clysters. These means are usually sufficient to calm the slight excitement of the pulse and colic pains which are experienced at this time. But if, after the closure of the external orifice, the patient suddenly experience violent pain in the bowels, accompanied with nausea, vomiting, and other symptoms determined by a retention of fœcal matter, we must have recourse to bleeding and other energetic measures. If these fail, it becomes necessary at once to re-open the cicatrix, and give exit to the contents of the intestinal canal, a proceeding which requires the greatest delicacy and caution.

It now remains to state briefly the results of the operations which have, up to the present time, been performed with the new instrument we have described. Forty-one operations had been practised with the enterotome up to the year 1824—twenty-one by me at the Hotel Dieu, and in private practice; twenty by various other Surgeons. Of these cases thirty had succeeded to strangulated hernia. The remaining fourth were the effect of penetrating wounds of the abdomen. Three patients only have died, one in consequence of stercoral effusion, the others from peritonitis. The remaining thirty-eight exhibited certain slight indispositions during the application of the enterotome, which were readily subdued by appropriate treatment. But all these were not equally restored to a state of health; in nine there continued to exist fistulæ, which required the constant application of a bandage, while twenty-nine were perfectly cured. Within the last few years, several other similar operations have been successfully performed. —*From the Lancet.*

HYDROSTATIC BED FOR INVALIDS.

(From the fifth edition of Dr. Arnott's Elements of Physics.)*

It is to mitigate all, and entirely to prevent some of the evils attendant on the necessity of remaining in a reclining posture, that the hydrostatic bed is intended. It was first used under the following circumstances.

* In the Press.

A lady after her confinement, which occurred prematurely, and when her child had been for some time dead, passed through a combination and succession of low fever, jaundice, and slight phlegmasia dolens of one leg. In her state of extreme depression of strength and of sensibility, she rested too long in one posture, and the parts of the body on which she had rested, all suffered; a slough formed on the sacrum, another on the heel; and in the left hip, on which she had lain much, inflammation began, which terminated in abscess The evils occurred while she was using preparations of bark, and other means to invigorate the circulation, and while her ease and comfort were watched over by the affectionate assiduity of her mother, with numerous attendants. After the occurrence, she was placed upon the bed, contrived for invalids, by Mr. Earle, furnished for this case with pillows of down and of air of various sizes, and out of its mattress portions were cut opposite to the sloughing parts; and Mr. Earle himself soon afforded his valuable aid. Such, however, was the reduction of the powers of life, that in spite of all endeavours, the mischief advanced, and about a week later, during one night, the chief slough on the back was much enlarged, another had formed near it, and a new abscess was produced in the right hip. An air pillow had pressed where these sloughs appeared. The patient was at that time so weak, that she generally fainted, when her wounds were dressed; she was passing days and nights of uninterrupted suffering, and as all known means seemed insufficient to relieve her, her life was in imminent danger.

"Under these circumstances, the idea of the hydrostatic bed occurred to me. Even the pressure of an air pillow had killed her flesh, and it was evident that persons in such a condition could not be saved unless they could be supported without sensible inequality of pressure. I then reflected, that the support of water to a floating body is so uniformly diffused, that every thousandth of an inch of the inferior surface has, as it were, its own separate liquid pillar, and no one part bears the load of its neighbour—that a person resting in a bath is nearly thus supported—that this patient might be laid upon the surface of a bath over which a large sheet of the water-proof India-rubber cloth was previously thrown, she being rendered sufficiently buoyant by a soft mattress placed beneath her—thus would she repose on the face of the water, like a swan on its plumage, without sensible pressure any where, and almost as if the weight of her body were annihilated. The pressure of the atmosphere on our bodies is of fifteen pounds per square inch of its surface—but, because uniformly diffused, is not felt. The pressure of a water bath of depth to cover the body, is less than half a pound per inch, and is similarly unperceived. A bed, such as then planned, was immediately made. A trough of convenient length and breadth and a foot deep was lined with metal, to make it water-tight; it was about half filled with water, and over it was thrown a sheet of the India-rubber cloth, as large as would be a complete lining to it if empty. Of this sheet, the edges, touched with varnish to prevent the water creeping round by capillary attraction, were afterwards secured in a water-tight manner all round to the upper border or top of the trough, shutting in the water as closely as if it had been in bottles, the only entrance left, being through an opening at one corner, which could be perfectly closed. Upon this beautiful dry sheet a suitable mattress was laid, and constituted a bed ready to receive its pillow and bed clothes, and not distinguishable from a common bed, but by its most surpassing softness or yielding. The bed was carried to the patient's house, and she was laid upon it; she was instantly relieved in a remarkable degree; sweet sleep came to her; she awoke refreshed; she passed the next night better than usual; and on the following day, Mr. Earle found that all the sores had assumed a healthy appearance; the healing from that time went on rapidly, and no new sloughs were formed. When the patient was first laid upon the bed, her mother asked her where the down pillows, which she before had used, where to be placed, to which she answered that she knew not, for that she felt no pain to direct; in fact, she needed them no more.

It may be here recalled to mind, that the human body is nearly of the specific gravity of water, or the weight of its bulk of water, and therefore, as is known to swimmers, is just suspended or upheld in water without exertion, when the swimmer rests tranquilly on his back with his face upwards. He then displaces water equal to his own body in weight as well as in bulk, and is supported as the displaced water would have been. If his body be two and a half cubical feet in bulk, (a common size,) he will just displace two and a half cubic feet of water, equal in weight to his body. If, however, instead of displacing the water with his mere body, he choose to have something round or under him which is bulky with little weight, as the mattress of the bed above described,—when his weight has forced two cubical feet of that under the level of the water around, he will float with four-fifths of his body above the

level, and will sink much less into his floating mattress, than a person sinks in an ordinary feather bed. It thus appears that by choosing the thickness of the mattress, and if unusual positions are required, by having different thickness in different parts, or by placing a bulk of folded blanket or of pillow over or under the mattress in certain situations, any desired position of the body may be easily obtained. If the water be about six inches deep, which in general will suffice, the person standing upon any part of the bed, or sitting with the knees raised, will cause the part of the mattress on which he rests gently to touch the bottom, because a narrow end of the body cannot displace water equal to the bulk of the whole, but then the person is standing or sitting on a soft sofa, and in standing or sitting, he naturally prefers the fixed to the floating support; on lying down, however, he as completely floats as if the Atlantic were under him. This bed is a warm bed, owing to water being nearly an absolute non-conductor of heat from above downwards, and owing to its allowing no passage of cold air from below. From this last mentioned fact, however, less of the perspiration, sensible and insensible, will be carried off by the air than in a common bed, and unless the patient can rise, or be lifted daily, to allow the bed to be aired like a common bed, there will be a necessity for using some such means as the following, to prevent the condensation of perspiration on the water-sheet below:— an oiled silk laid over the mattress, or a blanket to be occasionally changed, laid under it, or a set of flexible tubes of spiral wire laid under it, with their ends open to the atmosphere, to ensure a constant ventilation of the mattress; or, similarly placed and producing the same effect, a layer of cork cut into square pieces, with spaces left between them to serve as conduits of air. This bed is in itself as dry as a bed can be, for the India-rubber cloth (of which bottles can be made) is quite impermeable to water, and the maker is now preparing cloth expressly for this purpose. Then, as Sir Humphrey Davey recommended that his safety lamp should be double, some persons may prefer a double sheet, to obviate the possibility of accident. Unlike any other bed that ever was contrived, it allows the patient, when capable of only feeble efforts, to change his position, almost like a person swimming, and so, to take a degree of exercise, affording the kind of relief which in constrained positions is obtained by occasional stretching, or which an invalid seeks by driving out in a soft-springed carriage. It exceedingly facilitates turning for the purpose of dressing wounds, for by raising one side of the mattress, or depressing the other, or merely by the patient's extending a limb to one side, he is gently rolled over, nearly as if he were simply suspended in water; and it is possible even to dress wounds, apply poultices, or place vessels under any part of the body, without moving the body at all; for there are some inches of yielding water under the body, and the elastic mattress may at any part be pushed down, leaving a vacant space there, without the support being lessened for the other parts. Then, with all the advantages which other invalid beds possess, and with those which are entirely its own, it may yet be made so cheaply, that even in hospitals, where economy must prevail, it may at once be adopted for many of the bed-ridden. Mr. Earle, within a few days of seeing the first one, had others made for patients in St. Bartholomew's Hospital, and has been as much pleased with the results of them as of the first. The bed has since been introduced into St. George's Hospital, by Mr. Keate, and elsewhere. The author has now seen enough of the effects of this bed to make him feel it a duty at once to publish a notice of it. With it evidently, the fatal termination called sloughing, now so common in fevers, and other diseases, need never occur again. And not only will it prevent that termination, but, by alleviating the distress through the earlier stages, it may prevent many cases from even reaching the degree of danger. Then it is peculiarly applicable to cases of fractured bones, and other surgical injuries; to palsies, diseases of the hip joint, and spine; and universally, where persons are obliged to pass much time in bed. And in all cases of curvature of the spine, either actually existing or threatened, it affords a means of laying a patient in any desired position, and with any degree of pressure incessantly urging any part of the spine back to its place. If used without the mattress, it becomes a warm or a cold bath, not allowing the body however to be touched by the water; and in India, it might be made a cool bed for persons sick or sound, during the heats which there prevent sleep and endanger health. There are numerous other professional adaptations and modifications of it, which will readily occur to practitioners sufficiently versed in the department of natural philosophy (hydrostatics) to which it belongs. Before reflection, a person might suppose a resemblance between it and an air-bed or pillow, calling this a water-bed or pillow, but the principles of the two are perfectly distinct or opposite. An air-pillow supports by the tension of the surface which encloses the air, and is therefore like a hammock or the tight sacking under the straw mattress of a common bed, and really is a hard

pillow; but in the hydrostatic bed, there is no tense surface or web at all; the patient is floating upon the water, on which a loose sheet is lying, merely to keep the mattress dry, and every point of his body is supported by the water immediately beneath it. To recall the difference here described, and which is of great importance, the bed is better described by the appellation of hydrostatic bed than of water bed.

THE HYDROSTATIC BED.

To the Editor of the Medical Gazette.

Sir,—I beg to inquire of any of your Correspondents who have used the hydrostatic bed, the best mode of preventing the inconvenience arising from condensed perspiration. Living in a remote part of the country, without an opportunity of seeing one, I have had a bed of this description constructed, which succeeds in every respect, except that the perspiration, sensible or insensible, is condensed in such quantity, as to saturate with moisture every thing beneath the body. I endeavoured to remedy this by a sheet of corks netted together, with interspaces about equal to their own size, by which a stratum of air might be admitted to the under surface of the bed, which might carry off the moist vapour, and prevent its condensation. If the interspaces are larger, the corks are impressed into the surface of the water, and the water-proof cloth collapses with the tissue above. The plan succeeded in part; the moisture was not so troublesome; but still it did not entirely escape.

The desideratum is an apparatus for completely ventilating the under surface of the bedding, without preventing the water from receiving the impression of all parts of the body, according to their weight; for, in proportion, as this is interfered with, the advantage of the hydrostatic bed over others is diminished.

I am, Sir,
Your obedient Servant,

Sept. 30, 1833. O.

[*Medical Gazette, Nov.* 1833.

HEMORRHAGE, SECALE CORNUTUM.

Cases.—*Menorrhagia.*

Ann Beteux, aged 35, married, was admitted into St. John's Dispensary the 19th of January, 1832. She had been ill a long time with menorrhagia, and had been under different treatment till the 9th of April, but without any permanent relief. On the 16th, the hemorrhage having appeared again, we thought proper to try, for the first time, the effect of the secale cornutum in this case, and five grains of the powder were ordered to be taken three times a day. The hemorrhage from this time gradually diminished till the 10th of the following May, when it entirely ceased.

May 14th.—She feels a great deal better, and has no more pain in the loins and groins. The powders were continued twice a day till the 24th, and the patient was afterwards discharged cured.

Ann Marshall, aged 30, married, was admitted on the 14th of May, 1832, labouring under a very profuse menorrhagia; her pulse was quick and sharp; had great pains round the loins and hypogastric region, which was very tender. She was ordered to be bled to fourteen ounces; and saline aperient powders were prescribed.

17th.—The pains round the loins and groins are better; her pulse is softer, but the hemorrhage is still going on with great violence. Five grains of the secale to be taken three times a day.

21st.—She feels a great deal better. Had no hemorrhage since the 19th, namely, two days after she began to take the secale. The same powder was repeated, to be taken twice a day, and she was discharged the following day of attendance.

Case.—*Hemorrhage from the Rectum, following suppression of the Catamenia.*

Hannah Paton, aged 21, single, was admitted on the 12th of July, 1832. Eight months ago, felt quite well. Has not been regular the preceding month, but had since pain in the groins and loins, with great general debility. These symptoms were followed by hemorrhage from the rectum, which continued at intervals up to this day. Had previously taken some opening medicine without any relief. Five grains of the secale to be taken every four hours.

16th.—Since she has begun to take the powders, finds the hemorrhage much abated. Pergat.

23d.—Has had no hemorrhage since the 20th. The menses returned on the 21st; and she feels now quite comfortable. The powders were repeated, to be taken occasionally, she was afterwards discharged.

Case.—*Hæmatemesis.*

Elizabeth Pilcher, aged 10, in June, 1832, was in good health. Her illness was caused through having been violently pressed round the waist by a man, who frightened her very much. This produced pain in the right hypochondrium, extending towards the epigastric region, and was followed by a sense of sickness at first, then vomiting of the contents of the stomach, and afterwards pure

blood. She has continued in this state up to the day of her admission, the 30th of July, 1832. If pressure is made over the right hypochondrium, which has been very tender since the commencement of her illness, the hemorrhage ensues immediately. She was not under our care till the 10th of the following month of September, but had not found any relief from the usual means which were employed, from the time of her admission. We thought this a good case to try the effect of the secale; therefore, after having used some mild opening medicine, on the 13th of September three grains of the secale were ordered to be taken three times a day. This remedy was repeated the 17th and 20th of the same month, but without producing any effect in arresting the hemorrhage: it was then discontinued, and other means were adopted. The greatest benefit was obtained by the sulphate of iron mixed with kino. On the 28th of February, 1833, she was discharged, having been more than a month quite free from any hemorrhage.

She remained well for about ten days, when having accidentally struck with violence her right side against a chair, the pain in the right hypochondrium, and vomiting of blood, returned. She came back, in consequence, to St. John's Dispensary, on the 7th of March, 1833, and was admitted under our care. Various remedies were employed, which were found beneficial on the former occasion, but without obtaining any good effect on the disease. We then thought proper to have recourse again to the secale cornutum, but administered in large and more frequent doses. Therefore on the 28th of March, we ordered six grains of the secale to be given every second or third hour. After having taken six powders, the sickness, the vomiting of blood, and the pain in the right hypochondrium, left her. She continued taking them at longer intervals for several days, without giddiness or any other unpleasant symptom arising from the medicine. The pulse appeared stronger and her countenance more animated and florid than before. She omitted once taking the powders for a short time, and the sensation of sickness, and the pain in her side, returned, but were very soon relieved by having recourse to the same remedy. The powders were continued but only night and morning, from the 1st to the 14th of April. On the fifteenth day they were entirely omitted, as our patient felt herself quite well.

19th.—She was discharged cured, and has not yet returned.

Case.—As another instance of *hœmatemesis* we shall relate, with Dr. Macmichael's permission, one which occurred in the Middlesex Hospital.

Lucy Haselton, aged 21, single, was admitted into the Middlesex Hospital on the 21st of September, 1830, under Dr. Macmichael's care, King's ward. She was complaining principally of great tenderness over the right hypochondrium extending towards the epigastrium: she had sickness, with vomiting of a dark fluid, mixed with blood, partly coagulated. Local bleeding and different astringent remedies were employed without success. On the 27th of Novr. Dr. Macmichael was kind enough to prescribe for her, at our suggestion, the following powder: R. Pulv. Secalis Cornuti. gr. vj.—ter die sumend.

Sept. 29th.—The patient was better, and the same remedy was continued.

30th.—The hemorrhage having ceased, and the pain over her right side greatly diminished, she was discharged, and only kept as an out-patient. The powder was ordered to be taken only twice a day.

Dec. 2d.—She stated she had not seen any more blood, and was going on well.

CASE.—*Epistaxis.*

Sarah Hodges, æt: 62, of a leucophlegmatic habit, was admitted on the 19th August, 1833. She was seized with epistaxis on Thursday evening, three days previous to her admission. On the following evening (Friday,) at about eight o'clock P.M., the hemorrhage returned, and continued for half an hour, when she applied to a surgeon, who put plugs into the anterior nares, but the bleeding continued through the posterior the whole of the night, more or less. In the following morning (Saturday) she was bled in the arm to about a pint, and took some opening medicine. The hemorrhage, however, continued at intervals all that day and throughout the night, but not so violently as before. On Sunday morning the hemorrhage, after having ceased for a little while, returned about the same hour of the preceding day, and continued more or less all day; and in the evening it was very much increased, and went on bleeding at intervals almost all the night. On Monday morning (Aug. 19th), about noon, the bleeding came on very freely; she thinks she lost about half a pint of blood in a quarter of an hour.

When we saw her, it was about one o'clock P.M.; at which time the hemorrhage was very active. She was very pale, and weak; her pulse very quick, and small. Six grains of the secale cornutum were ordered to be given immediately (1 o'clock P.M.), and to be repeated every quarter of an hour. She was directed to sit down in the apothecary's room to watch the result.

At a quarter-past one the hemorrhage was very much abated; she was then complaining of being very faint. A second dose was given; and five minutes after it—viz. twenty minutes from the first exhibition of the remedy—the hemorrhage had entirely ceased. Another powder was given at half-past one, and a fourth at two o'clock. She was then sent home, and directed to take one powder only every hour, till six o'clock in the evening; and if no hemorrhage re-appeared, to take one of them every three hours.

August 20th.—We visited the patient at her own house, and found her lying down comfortably. She stated that she had been free from hemorrhage since she took the second dose of the remedy at the Dispensary, and now feels only very weak. The powders were continued at longer intervals.

She was well, and had seen only a few drops of blood the same day we visited her at home, after having pinched her nose, but ceased directly after taking one of the powders. No remedy was ordered. She returned on the 19th September, when, being quite well, she was discharged cured.

[This case was witnessed by our colleagues, Dr. Ryan, Mr. Jenkins, and Mr. Nettlefod, the surgeon-apothecary of our institution, who gave the medicine himself to the patient, and watched over the case.]

CASE.—*Hœmoptoe.*

Jeremiah Sams, æt: 20, Cabinet Maker. Four months previously, he had a cough, with a slight expectoration in the morning, which was generally of a greenish colour. Six weeks ago he observed the expectoration to be tinged with blood: this continued for a week. Then he began to bring up about a tea-spoonful of blood every morning, and continued so for the last two weeks. The hemorrhage was neither preceded or attended with any considerable aggravation of his cough, and only occurred in the morning. His complexion is very pale. He had also some difficulty of breathing when making any exertion. He was admitted on the 3d of October 1833, and as there was not present any symptom indicating the existence of an inflammatory action requiring more active means, six grains of the secale cornutum were prescribed, to be taken three times a day.

October 7th.—After having taken his powders for two days the hemorrhage diminished, as well as the cough. Has had no giddiness, or any other extraordinary symptom, from taking his powders. The remedy was repeated, and soon after the hemorrhage ceased.

17th.—Had a slight return of the hemorrhage for two or three days, but only once in the morning.—Pergat.

24th.—The hemorrhage ceased entirely from the 21st. The cough and the difficulty of breathing is a great deal less.—Pergat.

28th.—On the 26th, he saw again a very little tinge of blood in his spittle. His cough is a great deal better.—Pergat.

November 1st.—Has had no more hemorrhage; his cough is now very slight.—No remedy.

CASE.—*Hœmoptysis.*

Mrs. Clarkson, æt: 33, married, a private patient. Has not been in good health the five years, since she ruptured a vessel in her chest. After this accident she had a cough, which together with the hemorrhage from the chest, and sometimes from the nose, has continued up to the present time (April 4, 1833,) with but slight intermission: indeed, for the last fortnight, has had hemorrhage from the chest every day. She thinks she must have lost this morning about half a tea-cupful of blood. Her cough is very troublesome; has great palpitation of the heart, and giddiness.

April 4th.—Six grains of the ergot of rye were ordered to be taken every second hour.

5th.—Rested well last night. This morning her pulse is quick, but soft; the cough less, and expectorates freely. Has had no hemorrhage since taking the above powders, of which she had sixteen. The giddiness is less, and she feels much relieved.

6th.—Has had no hemorrhage; her cough is better; pulse full, quick, and rather sharp; tongue white. She is feverish; has pain in her side, and this is usually followed by the bleeding, which she thinks will soon come on.

Continue the powders every hour.

7th.—The pain in the side left her in the night; after which she slept well. Has had no hemorrhage; feels very weak; pulse soft, and moderately quick; is not giddy. The hemorrhage has never left her so long before, for a considerable time. Her cough, she thinks, is certainly better, and has experienced much relief from the medicine.

Continue the powders every second hour.

11th.—The hemorrhage has not returned. Her pulse is soft, and a great deal less frequent than before she took the secale; the palpitation of the heart is also less troublesome, and her cough is much easier now than before.

Twelve grains of the secale cornutum to be taken every second hour.

22d.—She has had no hemorrhage since taking the secale, and its increased dose

has produced no unplcasant symptom. She finds it relieves her cough considerably; but as it is accompanied with hectic fever, there appears to be but little hope of her being cured of it. The secale has certainly abated the hemorrhage, which is all that in such a case as this could be expected; and as the patient desires, it is continued.

No return of the hemorrhage, up to the present day (April 29th). She died some time afterwards, from consumption, but had never any return of the hemorrhage.

CASE.—*Hemorrhage from the Gum, in consequence of the extraction of a tooth.*

A delicate-looking man, aged 32, a carpenter, had the left canine tooth of the upper-jaw extracted, and the operation was followed by profuse hemorrhage. He applied at one of the large hospitals for relief, and was desired to press a piece of sponge into the socket of the tooth. He did so, without any benefit. He then applied to Mr. Packer, surgeon, at Hoxton, who recommended him to me. On examination, I found a coagulum, about the size of a large walnut, over the alveolar process, but there was still some oozing of blood.

I ordered him the secale cornutum, in the manner prescribed at the St. John's Dispensary, desired him not to remove the coagulum, and wrote to his Surgeon, that in the event of further hemorrhage, to plug the alveolar process with a piece of cork; but should this fail, Ruspini's styptic; or to apply the actual cautery; and finally, that the carotid ought to be tied sooner, than allow the man to die. Mr. Packer called on me next day, to express his astonishment at the success of the secale, as it had completely arrested the flow of blood; and he since informed me that no return took place. I was aware that Dr. Spajrani had removed the coagulum in a case of epistaxis, and encouraged the hemorrhage, and stopped the bleeding with the secale cornutum; but I did not consider myself justified in adopting his practice, as the man had lost a great deal of blood, and was very much debilitated.—DR. NEGRI *in Medical Gazette, December* 1833.

DENTITION.

I attended a fine boy from the cutting of his first incisor tooth to the completion of his dentition of twenty teeth. It was the last child of a family in which all the children had afforded examples of anormal dentition. This boy was of a nervous temperament, with black hair and eyes. Every tooth had come forward with a want of biliary secretion. Nothing could exceed the care observed by the watchful mother, as to the diet of the infant; yet, whenever an effort at developing a tooth took place, she was always aware, from the deficiency of bile in the evacuations, that he was to have slight fever, sometimes with a catarrh and cough, always with twitchings of the face and fingers, and starting and moaning during sleep, and a catch in fetching a deep sigh. With the appearance of the four first molares the spasms were more severe. The thumb of the right hand was thrust into the palm, and the fingers clenched upon it; the toes were drawn down; the face was distorted. These spasms relaxed and re-appeared. I found, on these occasions, that the tooth was always anormal in its progress; seldom observing its turn, and never its time. The gum lancet freely used always cured these spasms. On the last occasion, I was sent for in great haste, for the spasms had been continued into an epileptic fit; from which I speedily and effectually relieved my little patient by cutting through the capsule of the coming tooth.

I was called one evening to the child of a lady in Regent Street. It was a fine girl of fourteen months of age. The head was large; dark hair; dark eyes. It was in a tub of warm water, quite insensible, passing from the state of epilepsy into tetanus. Its eyes were not influenced by light; the pupils remained dilated. The anterior molaris of the left side, in the upper jaw, was ready to come through. I cut freely through the capsule with my gum lancet; in two minutes the child was on its knees in the water, playing with the handle of the tub, in excellent spirits. This child had been twitching the angle of the mouth, and had had its right arm spasmodically affected during the day.

A boy, twelve years of age, was cutting the second or posterior permanent molaris of the upper jaw before those of the lower, and the process was accompanied by twitchings of various parts of the body. At last he became affected with chorea. Being a very nervous lad, if any notice were taken of him, he would quite involuntarily make the most extraordinary faces, and contort his body into various attitudes that appeared to be most difficult and painful.

This chorea continued for three months, during which time a variety of medicines were swallowed. At last he fell into an epileptic fit, struggling much, foaming at the mouth, and grinding the teeth. I thrust my fore-finger along the inside of the cheek, and found a hard cartilaginous space on each side, behind his first molar teeth. I succeeded in gashing these parts; he uttered a scream, and fell out of his fit,

becoming quite sensible; nor had he a recurrence of his chorea.

A young woman, nineteen years of age, of light hair and fair complexion, of fine tall figure, rather fat, was in the year 1818, apprentice in a straw-bonnet-shop, in Hayes's-Court. Her occupation was sedentary, and she had not been in the habit of paying attention to the state of her bowels, they were suffered to be very costive. For several months she had perspired profusely at night, and her breath had been observed to be very offensive; she started in her sleep, and had repeatedly awakened her bedfellow by kicking her on these occasions. She moaned and talked in her sleep. Dr. Nuttall, who was my colleague at the Westminster General Dispensary, was suddenly called to her on account of her having fallen into a fit. He caused her to be profusely bled, and she recovered so far as to be able to see her physician at the Dispensary. Three weeks afterwards, the doctor being from home, I was obliged to see this patient in a fit, similar to the first she had had. I learned that she had been very odd and nervous in her manner, and had often suddenly screamed out from cramps seizing her toes and the calves of her legs, which were succeeded by her thumb being drawn in towards the palm of her hand, and her fingers being clenched upon it. I found her in a state of tetanus. The convulsion was over. I thrust my fore-finger into her mouth, where I found the wise teeth of the upper jaw through. In the lower jaw the teeth could not get through, for there were hard cartilaginous substances in their way; through these I scored freely, and the young woman was relieved instantly.

I was called last year to Upper Marylebone-Street, in the night, to see the daughter of a very honest and independant tradesman. She had been attended for the fit in which I saw her by two medical friends. The parent's anxiety made him apply to me. The patient was a fine young woman of nineteen, with dark hair and eyes. She was stiffly curved in tetanus. I asked her sister if she knew whether any wise teeth had lately been out. Upon her answering in the affirmative, I took a gum lancet, and relieved my patient instantly, by cutting through the obstacle to the progress of her wise tooth, in the right side of the lower jaw.—Dr. Ashburner, *in Med. Gaz., Nov.* 1833.

IODINE IN SALIVATION.

In a recent number of Hüfeland's Bibliothek der Practischen Heilkunde, is a note strongly recommending Iodine in cases of severe salivation, which is represented as removing the most violent inflammation of the salivary glands, and even healing ulcerations produced by mercury, within a few days. The dose, two grains a day, increased to four; and the following is the formula:—Iodine, gr. v., dissolved in Alcohol, ℥ij.; Cinnamon Water, ℥iisss,; Syrup, ℥ss.; to be taken in doses of half a table spoon, and gradually increased.—*Medical Gazette, October* 1833.

COMPLETE EXTIRPATION OF THE CLAVICLE.

A case of this rare operation is detailed in the Journal der Chirurgie und Augenheilkunde. A man, aged 31, of feeble constitution, was seized, in June, 1822, with violent pain in the right arm, simulating rheumatism, for which it was treated, but without avail. In October, 1822, he came to the hospital at Zurich. He was then much emaciated, and labouring under hectic, with an unhealthy ulcer at the acromial end of the clavicle, which was partially denuded. More close examination shewed the bone to be carious throughout. Various remedies were employed, both generally and locally, without avail; and it was then determined to extirpate the part. The arm was carried forward as far as possible, with a view of removing the clavicle to the greatest distance from the vessels beneath it; an incision was then made along the lower edge of the bone, and its connexion with the parts beneath separated, partly with the fingers and partly with the knife. The capsule of the sternal end was next opened, but in pulling the bone, to disengage it, it broke near the articular extremity. The fractured portion was easily removed, and the fragment at the sternal articulation also brought away without difficulty. The operation was completed in five minutes, and no vessel of importance was opened. The patient did well, being able to perform all movements of the arm, forwards, backwards, and upwards. He continued his usual avocations till 1828, when he died of phthisis.—*Medical Gazette, November* 1833.

NEW RECTUM BOUGIE.

To the Editor of the Medical Gazette.

Army Medical Department,
October 3, 1833.

Sir,—I beg leave to transmit you herewith a copy of a Letter received from Dr. John Murray, dated Cape of Good Hope, 3d July last, relative to a Rectum Bougie recently invented by Mr. Poleman, of that

place; and I have to request an insertion of it in your valuable periodical publication, so far as you may deem it worthy of notice.

I shall be happy to show you a specimen of the Bougie, if required.

I have the honor to be, Sir,
Your most obdt. Servant,
J. McGRIGOR, *Director General.*

(COPY.)

Cape of Good Hope, July 3d, 1833.

Sir,—I beg to send you a specimen of Rectum Bougies, of a very superior kind to any that I have ever before seen or heard of, which have been recently invented by the ingenious Mr. Poleman, apothecary, of this place, from a description I gave him of the requisite qualities of such instruments.

They are formed of the thick hide of the rhinoceros or hippopotamus, which can be made hollow, if required; and their superiority consists in their flexibility and elasticity, (admitting of modification in these respects to almost any degree by the application of moist and dry heat;) and in their not being liable to crack, or otherwise spoil by use.

I have had occasion to make a trial of them in a severe and intricate case, for which indeed they were expressly made, and I am happy to say that I found their advantages over the other kinds of Rectum Bougies to be such, that I consider the invention as one of very great value, and highly deserving of being made generally known to the profession through the medium of the periodical press.

In the case above alluded to, I also made dilatation of the stricture by means of a piece of prepared ox's intestine introduced upon one of these bougies, or upon a gum elastic bougie, and afterwards distended with water—a method which I think extremely beneficial and easy.

Bougies for the urethra, of any size, can be made of the same material quite as good as the gum elastic sort, and I would only suggest, as an improvement, their being varnished.

(Signed) JOHN MURRAY, *M.D.*

Sir James McGrigor, &c. &c., Director General of the Army Medical Department.

[*Medical Gazette, Oct.* 1833.

ON THE LOWER JAW AND EFFECTING THE CONSOLIDATION OF UNUNITED FRACTURES.

BY BARON DUPUYTREN.

A pernicious error long prevailed among surgeons with regard to cases of ununited fracture it consisted in believing that it was absolutely necessary to cut through, or, as it was called, refresh, the two fragments, in order that a solid callous might form. In consequence of this opinion, the operation was not performed, where this double section was impossible, or attended with much difficulty.

In this way it was rarely had recourse to in unconsolidated fractures of the femur, or in those in which the fragments rode. It is to M. Dupuytren that is due the merit of clearing up this important point in pathology, and demonstrating the fallacy of the opinion alluded to. He thought it would prove sufficient to make a section of one fragment only in order to effect re-union, and he succeeded in two cases in which he tried the experiment.

The first case was that of a female, who had had an ununited fracture of the thigh for eighteen months, and in whom M. Dupuytren, having exposed the upper fragment at the outside of the limb, cut off the extremity, then reduced the fracture, and obtained consolidation in about two months.

The subject of the second was a Russian officer, M. de R., aide-de-camp of Count Woronzoff, who, at the battle of Brienne, in 1814, received a ball which passed from left to right, from beneath upwards, through the neck and lower part of the face. The ball entered on the left, immediately beneath the base of the jaw, at its angle, just before the external carotid artery, and above the os hyoides; and it made its exit to the right, higher up, and before the insertion of the masseter, corresponding so exactly to the jaw that it must have separated the body from the ramus of the bone. The skin, the muscles situated at the side of the neck, the bone at the root of the tongue, had been all traversed, and the lower jaw had suffered a comminuted fracture.

The patient had lost much blood: at first, respiration and deglutition were extremely difficult: after the separation of the eschars, an abundant suppuration took place; and finally, after six months of care, and the spontaneous exit and extraction of numerous splinters, the wounds were cicatrized, without the fracture of the jaw being united. Judging from the fragments removed, about an inch of the bone must have been destroyed. Obliged to follow the Russian army on its leaving France, M. de R., cured of the external wound, but not of the fracture, was unable to return to Paris till 1818, when he was in the following state.

Of the two fragments, the posterior, formed by what remained of the branch of the jaw and a portion of the alveolar ridge, had the shape of an elongated and flattened cone, it had become slightly rotated

inwards, so that its superior edge, instead of corresponding to the upper molares, was directed towards the side of the tongue: at the same time a displacement outwards threw the fragment far from the anterior one, towards the thickness of the cheek, where projecting obliquely from above downwards and from within outwards, it supported the wisdom tooth, the crown of which was inclined, on account of the deviation from the natural position which the jaw had undergone. Before this tooth, a sharp point, beneath which nothing was to be felt, indicated that a portion of the alveolar ridge, about an inch in length, had remained continuous with this fragment; but all below, and from it to the angle of the jaw, was destroyed.

The anterior fragment formed by the rest of the jaw had undergone such displacement, that the extremity corresponding to the fracture had been carried to the right, and under the point of the preceding. When the finger was moved from before backwards, along the base of the jaw, till it arrived at the cicatrix, where it rested on the bone at the right side of the face, the projection caused by the point of the anterior fragment was easily perceived, and beyond this the void caused by the loss of substance in the posterior fragment. This portion, judging from the interval which separated its extremity from the second small molaris, was about an inch in length, and was formed by the part of the base of the jaw which had served for the support of the alveoli of the two first large molares, and which had been carried away by the ball, together with the teeth themselves.

Nevertheless, when the parts were examined from within the mouth, the void produced by the loss of these two teeth, and the alveolar process, was scarcely perceptible. The second small molaris of the anterior fragment was almost in contact with the wisdom tooth on the posterior portion, the right half of the lower jaw appearing much shorter than the other, from which resulted a want of adaptation, so that the teeth of the two jaws did not correspond, except at one point; this was at the right lower lateral incisor tooth, which struck against the third incisor in the upper jaw of the same side. In this state of matters the articulation of sounds was extremely difficult, and the mastication of solid food impossible—as much in consequence of want of correspondence between the jaws, as of the weakness and uncertainty of the movements in raising the lower jaw, these being only exercised on one side. To these infirmities various other deformities were added; if the patient ceased to keep up the jaw, by means of a handkerchief passed beneath it over the top of his head, it fell, leaving the mouth open, with a continual dribbling of saliva. Besides this, the chin was turned to the right, so as to distort the face.

M. de R. having in the first instance applied to M. Percy, this gentleman conceiving the idea of making a section of the two fragments, with a view of bringing the parts in contact, and procuring their consolidation; and whether with the intention of ascertaining more accurately the situation of the parts, or in the hope of being able to operate more easily upon the posterior fragment, which the elevator muscles kept immobile, and fixed against the upper dental arch, he was induced to remove the last molaris in the upper jaw. Scarcely had this been done when the posterior fragment, having no longer any thing to restrain it, and yielding to the influence of the muscles attached to it, was carried more and more upwards, revolving at the same time on its condyle, until the tooth which it supported came to be lodged in the interval left by the removal of the tooth in the upper jaw. The point of the fragment lodged itself in the thick part of the cheek, opposite the upper alveolar arch; and seemed to be immoveable in this position; the interval between it and the anterior fragment being considerably increased. This circumstance, which it was difficult to have foreseen, rendered the situation of the patient worse than before. And now, in addition to the other difficulties to be overcome, was that of bringing down and retaining the posterior fragment, an object by no means easily accomplished. Such was the state of matters when the patient was handed over to M. Dupuytren.

The first care of the latter was to ascertain the indications afforded by the circumstances; the second related to their fulfilment. The resection of the fragments was the first object, and did not seem to present any difficulty. But this alone was not sufficient; and it was obvious that the greater the loss of substance to which they had been subject, the greater would be the difficulty in approximating them. Convinced by numerous observations that it was sufficient in analogous cases to make a section of only one of the fragments to procure consolidation, he resolved to do so with respect to the posterior fragment only, and to content himself with scraping the other.* But, as has already been said, the loss of substance

* The French word is ruginer: it is applied almost exclusively to cleansing the teeth, and implies their being rubbed with a steel instrument.—Trans.

suffered by the posterior fragment involved the portion of it which corresponded to the base of the jaw; while, on the contrary, that of the anterior fragment involved the alveolar process: whence it resulted, that if both were brought back to their proper places, they could never be brought into immediate contact, because there would have always been between their points of termination the natural interval which separates the basis of the jaw from the alveolar ridge.

This consideration did not deter M. Dupuytren, who had seen, after many amputations of the middle portion of the jaw, a production of bone extend from one branch to the other, and make up so exactly the body of the bone which had been removed, that the patients, when examined from without, did not seem to have lost the projection of the chin. But what was more difficult was, that in order to prevent deformity, it was requisite that the two fragments should be got into their proper places, and kept there; that is to say, that the posterior one should be carried downwards, and to the left, while the anterior was to be raised, and brought to the straight line. M. Dupuytren was anxious, therefore, to try how this might be done, before he proceeded to an operation. The first expedients tried and persevered in for a month, were unavailing. M. Lemaire, a distinguished dentist, then invented a very simple and ingenious contrivance. It consisted, first, in replacing the upper molar tooth (which had been removed) by one of ivory, which should oppose itself, as the natural one had done, to the dragging of the posterior fragment upwards; and secondly, in replacing and maintaining the two fragments in a proper position by means of platinum wires attached on the one hand to the teeth remaining in the portion of the jaw next to the fracture, and fixed on the other to the teeth in the corresponding part of the upper jaw. A trial of these having first been made, and M. Dupuytren, well convinced that the operation had nothing dangerous in it, and that even if unsuccessful it could not add to the mischief, proceeded in the manner which follows:—M. de R. being placed in a chair, the operator laid hold of the right cheek between his thumb, which was applied to the skin, and the fore-finger of the right hand introduced into the mouth; and then with a bistoury held in the left hand, he divided the parts from without inwards, perpendicularly from the axis of the jaw, about three lines behind the summit of the projecting point formed by the posterior fragment: the incision having been continued to the bone, and the fleshy parts which covered this, both before and outwards, having been divided in a circular manner, he substituted a saw with a very narrow blade, with which he effected the removal of a portion of bone of triangular shape, the smooth cicatrized extremity of which adhered to the soft parts of the cheek. The fragment itself which remained was about three inches long. The portion which had been separated was removed from the inside of the cheek and mouth. M. Dupuytren then applied to the anterior fragment, which he wished simply to denude, an instrument used by engravers on wood, and which he employed after their fashion; that is to say, the handle of this kind of gouge rested against the palm of his hand, being retained there by three of the fingers, while the thumb and fore-finger were extended upon the blade. The fore-finger of the left hand acted as a director and point d'appui on the oblique border of the fragment. All this border was denuded of its soft fibro-cartilaginous parts. M. Dupuytren, however, had the precaution to preserve the inner portion of the gum, the situation of which formed a kind of barrier, which prevented the saliva from penetrating between the ends of the fragments. The operation was attended with but moderate pain, and the loss of blood did not exceed a few spoonsful.

The next point was to fasten the fragments. M. Lemaire began by placing in the situation of the last molar of the upper jaw, a strong piece of hippopotamus tooth, the upper surface of which was applied to the gum, and the lower surface of which preserved a cavity to receive the wisdom tooth of the lower jaw. This was fixed by a platinum wire in such manner as to form a substitute for the tooth which had been removed, as above mentioned, and so as to keep down the posterior fragment which had become tilted up into the thick part of the cheek, and this was the first indication after the completion of the section of the bone.

A noose of wire of the same metal was next twisted round the crown of the wisdom tooth of the posterior fragment: the wires were then carried above the tongue, and passed through the gum on either side of the small inferior molaris of the left side, in which situation they were united and fastened. This wire was intended to carry the posterior fragment upwards, and to keep it on the same line as the other. In this manner the posterior fragment was brought down and fixed to the anterior, the movements of which it was henceforward to follow, and thus two mutual indications were fulfilled.

Lastly, it was necessary to fix—to render them more secure—the two reunited fragments of the lower jaw to the upper jaw:

with this view, another noose of platinum wire was passed round the small molaris of the lower jaw on the right side, and attached to the corresponding tooth in the upper jaw on the left side. This proved by far the most difficult part of the proceeding: the wires broke; the muscles became irritated, and acted violently; and it required two hours' patient labour to effect the purpose. At length the patient, now much fatigued, was replaced in bed, and ordered to observe absolute silence, his wishes being expressed in writing.

His first night was tolerably quiet; but some evils soon shewed themselves. The pressure exerted by the false tooth on the upper gum, and by the platinum wires upon the tongue, produced excessive pain in those parts; the patient even expressing his apprehension that his tongue was cut through: on the other hand, the wires attached to the teeth of the upper jaw, communicating to them the efforts made by the fragments to become disunited, occasioned pain over the whole of the alveolar arch, which recurred at intervals, was so frequently repeated as to prevent the patient from sleeping, and so acute as to draw tears. On the eighth day, some pus was mingled with the mucus which flowed from the mouth. The parts were washed out by means of injections several times a day—a proceeding which proved exceedingly agreeable to the patient, and which was continued throughout. It was not till the 28th day that the bandages were removed; the external wound was then almost cicatrized, and the suppuration in the mouth, which had never been very abundant, was diminishing. On the 32d day, the wound externally was entirely healed. On the 61st day, the bandages were removed, in order to examine the state of the parts. On running the finger along the base of the jaw, it was ascertained that a new production had been formed, firm, resistant, and extending from below upwards, and from before backwards, from the anterior to the posterior fragment. This state of things was as satisfactory as possible, but the removal of the apparatus was postponed for two days more. On the 63d day, the nooses of wire, which fixed the two dental arch were removed. Some slight movements of elevation and depression were performed, when it was perceived that the jaw became a little inclined to the right in descending, but recovered its proper position on being raised; so that when the movements were repeated, the patient was seen to masticate exactly in the manner of an herbivorous animal. On the 68th day, the thread which traversed the mouth was removed. The fears which the gentleman had expressed at the commencement, were now perceived to have been well founded. The two portions of wire composing the noose which extended across the mouth from the right wisdom tooth of the lower jaw to the first molaris of the left side; had cut their way into the substance of the tongue, through more than half its thickness; but as the layer, first divided, had progressively healed as the wires penetrated more deeply, these were found passing right through the tongue, like the pin in hare-lips: they were cut across and removed. The patient was now allowed to speak, after sixty-eight days of such absolute silence that not only was he not permitted to utter a word, but even to attempt a sound. On the 83d day the false tooth was removed, which had hitherto been left by way of precaution. By the 90th day the jaw evidently became less drawn to the right side in being lowered, and had regained much of its symmetry; so that when M. de R. quitted Paris, the chin occupied the median line, the teeth of the lower jaw being situated behind those of the upper, by about the thickness of one of the incisors. The patient could articulate distinctly, and was able to masticate solid food.

Several letters have been received by M. Dupuytren from him, as well as General Woronzoff, since his return to Russia, which confirm the solidity of the cure.—*Medical Gazette, October* 1833.

MEGALONIX.

"The canine tribe are carnivorous, like the feline, and both have the last bones of their toes armed with a nail or claw. But their habits and their means of obtaining food are different. The first combine a keen sense of smelling with a power of continued speed; they run down their prey. The feline order have their superiority in the fineness of their sight, accompanied with a patience, watchfulness, and stealthy movement, they spring upon their prey, and never long pursue it. They attain their object in a few bounds, and failing, sulkily resume their watch. When we look to the claws, we see a correspondence with those habits. The claws of the dog and wolf are coarse and strong, and bear the pressure and friction incident to a long chase. They are calculated to sustain and protect the foot. But the tiger leaps on his prey, and fastens his sharp and crooked claws into the flesh. These claws being curved and sharp, we must admire the mechanism by which they are preserved. The last bone, that which supports the claw, is placed lateral to the pen-ultimate bone, and is so articulated with it, that an elastic ligament

draws it back, and raises the sharp extremity of the claw upwards. The nearer extremity of the furthest bone presses the ground in the ordinary running of the animal, whilst the claw is thus retracted into a sheath. But when the tiger makes his spring, the claws are uncased by the action of the flexor tendons; and they are so sharp and strong in the Bengal tiger, and his arm is so powerful, that they have been known to fracture a man's skull by a touch in the act of leaping over him.

"President Jefferson having found a bone, which, by its articulating surface, and general form, he recognised to be one of the bones of the phalanx of an animal of great size, he thought he could discover that it had carried a claw; and from this circumstance he naturally enough concluded (according to the adage ex ungue leonem), that it must have belonged to a carnivorous animal. He next set about calculating the length of this claw, and estimating the size of the animal. He satisfied himself that in this bone, a relic of the ancient world, he had obtained a proof of the existence, during these old times, of a lion of the height of the largest ox, and an opponent fit to cope with the mastodon. But when this bone came under the scrutiny of Baron Cuvier, his perfect knowledge of anatomy enabled him to draw a different conclusion.

"He first observed, that there was a spine in the middle of the articulating surface of the last bone, which in this respect was unlike the form of the same bone in the feline tribe. He found no provision in this specimen of an extinct animal, for the lateral attachment of the bone which we have just noticed to be necessary for its retraction. Then observing what portion of a circle this bone formed, he prolonged the line, and showed that the claw belonging to it must have been of such great length, that it could never have been retracted to the effect of guarding an acute and sharp point. The point, therefore, could not have been raised vertically, so as to have permitted the animal to put the foot to the ground without blunting the instrument. Pursuing such a comparison, he rejected the idea of the bone belonging to the feline tribe at all. His attention was directed to another order, the paresseux, or sloths, which have great toes and long nails. Their nails are folded up in a different fashion; they just enable the animal to walk, but slowly and awkwardly, something in the same manner as if we were to fold our finger, in the palm of the hand, and bear upon our knuckles. On instituting a more just comparison between these bones of the animal and the corresponding bones of the paresseux, he has satisfied us that the lion of the American President was an animal which scratched the ground and fed on roots."—Sir C. Bell *on the Hand.*

PROPAGATION OF LEECHES.

To the Editor of the Lancet.

Sir,—On perusing the interesting account regarding leeches, in your Journal of this day, I thought the following extract from a lecture on leeches, delivered by me at the Westminster Dispensary, might be useful.

Your's truly,

John Epps, M. D.

89, *Great Russell-street, Decr.* 28.

"Leeches, gentlemen, being thus valuable as medicinal agents, it has always been a matter of inquiry, what is the best mode of keeping leeches so that they may propagate?" A great variety of means has been tried. No success attended any plan, but one that was devised by the Physician-general to the Forces in one of our West India Islands, (I forget the gentleman's name.) He took clay, and having worked it well, placed it in the centre of a large vessel in which he kept leeches. He found in a short time that the leeches burrowed holes in this clay, so as to give it a perforated appearance; and, much to his delight, observed young leeches appear after a short time. After this, this gentleman found no difficulty in obtaining any supply of leeches.

This extract strikingly corroborates one remark of Mr. Sheriff's, namely, that the earth, which he recommends to be put in the box, will answer better if it be of a clayey nature. And I have very little doubt that if he watches with care he will observe ova at the proper seasons.

J. E.

Lancet, London, Jany. 1834.]

MALFORMATION.

ABSENCE OF THE ANUS IN A YOUNG FEMALE, 22 YEARS OF AGE.

By M. Ricord, Surgeon to the Venereal Hospital.

The following interesting communication has been made to the Editor of the French Lancet, by M. Ricord:—

I was consulted fifteen days ago, by a young girl of twenty-two years of age, who requested to be examined, saying that her lover accused her of having communicated

to him a blennorrhagia, which was utterly impossible, as she never had connexion with any other person; she also asserted that she was not made like other women, and begged me in consequence to pay a little more attention than common to her case. Having been frequently consulted by many females on pretended deformities, which consist in nothing more than a slight prolongation, perhaps of one nympha, or of the carunculæ myrtiformes. I am not in the habit of attaching much importance to their stories on this subject. The external genital organs did not present any thing remarkable or morbid, and the speculum was immediately introduced with facility. The parts which embraced its extremity were perfeetly healthy, and did not offer any thing abnormal or morbid to the eye. However, the depth to which the instrument was carried without meeting the neck of the uterus began to excite some astonishment, when a lump of fecal matter was brought into view, simulating to the touch the os uteri, and also some grape seeds, which were at first taken for vegetations. Being now convinced that some malformation existed, as the girl had at first mentioned, M. Ricord examined the organs of generation with the greatest care, and found the parts in the following state: the labia majora and minora, the clitoris and its prepuce were of the regular size, and well formed; the meatus urinarius was placed in its accustomed situation, and did not offer any thing particular; the posterior commissure of the vulva and the fourchette were also in the normal state, but on examining the perineum, we could discover no trace of anus; the place which the orifice should naturally occupy was marked by a brown spot, irregularly radiated, about the size of a shilling, and without any hair, although the mous veneris and vulva were overshadowed with a great abundance of this material. The ring of the vulva, which did not present any carunculæ myrtiformes, was furnished with eccentric folds formed by the mucous membrane, and engaged a certain power of contraction much less than that of the sphincter ani, but much more powerful than that of the common constrictors of the lower part of the vagina. Beyond this vulvar ring the finger penetrated without causing any uneasiness into a kind of canal, which from its situation and functions deserved the name of recto-vaginal. The speculum, which did not produce the least pain when introduced, exposed to the view a mucous membrane deprived of those traverse ridges so commonly found in the vagina; and when pushed on to its full length, without meeting the least prominence or line of demarcation, it was arrested by fecal matter. When a finger was placed in this canal, while a female sound was introduced through the urethra into the bladder nothing was felt between them except a septum, which might be compared to the utero-vaginal, or recto-vaginal wall. The toucher, exercised in every possible direction, and the speculum introduced to the greatest depth the instrument would permit, did not discover the least trace of a uterus. Upon questioning the woman with respect to the process of defecation, menstruation, and sexual intercourse, M. Ricord discovered the following particulars; the fecal matter was always passed by the vulva, and was perfectly under the command of volition, but gaseous fluids often escaped involuntarily: when the fecal matter presented itself at the orifice of the vulvar ring, she felt a desire to go to stool, and when this desire was satisfied, the finger introduced as deeply as possible, no longer met with any obstacle; the female besides has always taken care to use an injection immediately after, and to wash herself well, by which precaution she always kept herself clean. Menstruation has never made its appearance under any form, and no trace of blood has ever been discovered by her in the urine or feces. Although she has lived for three years with the same man, the latter has never appeared to have suspected or known the existence of any malformation, the first sexual intercourse which she had was not accompanied with any pain, for there never was any hymen to break, and the construction of the vulvar ring was feeble in this young woman. She feels the desire of sexual intercourse, however, she says, that according to the account she received from her female friends, her own desires are less strong, and her enjoyment not so great as in others of her sex. Finally, this girl is tall, slender, well made, her form and physiognomy are those of the female; the bosom is well developed, and has never experienced since the age of puberty any sudden change of volume, her voice is soft and sweet like that of a female. Before we terminate this observation, the practical and moral consequences of which may be readily reduced, we may notice that in three days this young female, who was not ill at the time of her visit, returned with a urethral blennorrhagia, without any affection of the vulva or recto vaginal canal.—*Lancet, November* 1833.

POISONING BY LAUDANUM—RECOVERY—ANTISOPORIFIC QUALITIES OF GREEN TEA.

J. K., a middle aged man, was admitted into Harrison's ward on Saturday evening, September 14th, labouring under the effects of laudanum, which he had taken with a

view to self-destruction. Upon enquiry it was ascertained that the patient was a medical man, living in the neighbourhood of the Commercial Road, in very reduced circumstances, the father of ten children; that he had formerly been surgeon to the Dispensary at Kinsale, a town about twelve miles distant from Cork, and had been compelled to bid farewell to his native country from an accumulation of adverse circumstances, over which it appeared he had no control. On his admission his case presented the following symptoms:—Considerable torpor, from which he could be aroused only with great difficulty, having taken the poison (rather more than an ounce) an hour previous to his being brought to the hospital. His breathing was laborious, the pupils were very much contracted, and not obedient in the slightest degree to the stimulus of light; pulse 26, small, and irregular in force; slight perspiration on the forehead.

The stomach-pump was immediately employed, when three pints of warm water were injected, and quickly withdrawn. After the lapse of a few minutes, the operation was repeated. As no very decided improvement followed the use of the stomach-pump, after waiting some time, he was ordered a strong infusion of green tea, of which he took about three-fourths of a pint, and by the assistance of two powerful men placed on each side of him, was made to walk slowly backwards and forwards in the lobby. This was by far the more troublesome part of the treatment. The patient would walk pretty well for a few paces, and then his legs would yield beneath him, his chin at the same time falling upon his chest, and the patient presenting the appearance of a corpse. Half an hour having elapsed without improvement, the pupils of the eyes being, if possible, more contracted, (now not larger than the head of a very small pin;) the jugular vein was opened, but as only three ounces of blood could be abstracted, the operation was performed on a vein of the arm, from which sixteen ounces were readily obtained. Before eight ounces had flowed, a most distinct alteration in the state of the pupils had taken place; they were more dilated, and now sensible to the stimulus of light. These symptoms became more apparent as the quantity of blood drawn increased. The infusion of tea was administered at intervals, until the stomach would bear no more. He vomited a good deal, after which, from having been in a frightful state of stupor, he became quite querulous, and among the first expressions greeted his attendants with the following:—"Nemo mortalium omnibus horis sapit." About half past twelve o'clock, sensibility being restored, he was allowed to go to bed. An ounce of castor oil was given, which was instantly rejected; afterwards 5 grs. of calomel with 1 minim of croton oil in the form of a pill.

Sept. 15.—Slept badly about two hours during the early part of the night; disposed to converse; complains of slight uneasiness about the head and throat; pulse tranquil. He expressed his gratitude for the care taken of him in language which plainly told, that he had once moved in a very different sphere of life from that of his present days. Ordered to take an effervescing draught every three or four hours, composed of lemon-juice and

Carbon. Ammoniæ 3ss.
Tinct. Zingiberis ℥xx.
Aqua ℥1ss. M. ft. haustus.

Three doses of the medicine were taken, which had the effect of tranquillising the stomach. In the afternoon, he felt so much recovered, that he could not rest happy longer in the hospital, and therefore left*.

Although the speedy recovery of this case cannot be mainly attributed to the infusion of green tea, it is considered in this hospital (where its beneficial effects have been witnessed on many occasions) as an important auxiliary to the treatment usually adopted in cases of poisoning by laudanum. The watchful state of the patient, during the greater part of the night, is worthy of remark, and fully justifies the reliance placed in this remedy as an antisoporific.—*London Hospital Reports, Lancet, Nov.* 1833.

THE INDIA
Journal of Medical Science.

CALCUTTA; JULY 1, 1834.

In the present Number of the Journal (and it is our intention to follow this plan in future) we purposely abstain from entering into the merits of every contribution as we find that our doing so would trench unduly upon our limits. We shall therefore confine ourselves merely to such brief notices from time to time of particular papers as may suggest themselves from the nature of the subject.

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* Left? Can it be possible that this unfortunate insane man, who only twenty-four hours before, had all but succeeded in an attempt to poison himself, was permitted to leave the hospital unattended, unprotected, and pennyless? Shame on such cruel, such inhuman negligence.—Editor.

The chief interest of Mr. Raleigh's excellent summary of Hospital Reports for the last month, turns upon a case of Purpura; happily a disease of rare occurrence. Mr. Raleigh comes to the conclusion that the disease may exist in what has been termed a Sthenic and Asthenic state of the constitution; or so to phrase it a high and low state of the system. Mr. Raleigh's practice in the cure was grounded upon the supposition that the constitution was in a high or animalised state; and his practice upon this inference had a most satisfactory result. The reader will observe that active depletion was steadily pursued.

We owe an apology to C. for not having sooner given his paper a place. The delay however was unavoidable; and in publishing it we presume we have fulfilled all that the writer expected. Perhaps it may attract the attention of some of our professional contributors who may find it convenient to enlarge upon the subject.

Mr. Bramley's paper, in a preceding number, has called forth one from the pen of Dr. Campbell, of Nipaul, on the same subject; viz. the summary amputations to which criminals are subjected. The gist of Dr. Campbell's paper is to shew that even without pressure, Nature manages to stop the effusion of blood.

We shall be very happy to hear again and again from our esteemed Correspondents A SUBSCRIBER and A. W.

With reference to Mr. Atkinson's very acceptable Reminiscences of French Surgery, where mention is made again and again of that extraordinary and eminent man; no less than to the benefits he has conferred on science and humanity: we are sorry to find by a notice in the *Lancet*, that BARON DUPUYTREN has been compelled, by sickness, to leave off lecturing in the midst of his course; and that some months will elapse, ere he will be able to resume the Professor's chair. We trust that the hopes entertained of his ultimate recovery, will be realized. Few men have done more for the good of his species than the Baron; and few will be equally and so justly deplored by the profession at large. DUPUYTREN belongs to mankind.

We have been favored by Mr. Previte with specimens of Ceylon Moss, as it is called, in a state fit for the immediate preparation of jelly; and of his Pulverized Milk, as it has been improved since our former notice.

Of the virtues of the Ceylon Moss we ourselves can speak from experience; as a light and nourishing food for the sick, it appears to be unequalled by any thing we have ever met with. We believe the merit of its introduction belongs to Mr. Previte, who has informed us, that in Ceylon it is used in the preparation of a kind of vegetable glue; and that on examining it he was struck with the idea of its becoming a useful article of food. The result has proved him to have been correct.

The Pulverized Milk has been much improved by the adoption of a plan for its preparation, which we suggested on the first specimens being submitted to us. But the article even yet admits of improvement, if perfect solubility is a sine qua non of its goodness; there being still a very small portion undissolved. This will arise from the slightest possible degree of coagulation in the milk during the preparation; and it bears so small a proportion in the specimen sent to us, as to be but of the slightest consequence. We are more than ever confirmed in our first opinion of the value of this discovery.

The principal topics that have agitated the Medical world at home during the last quarter of the byegone year, were a renewal in England by Dr. Robert Tytler, of his long-agitated question of the origin of Cholera from rice; and the resignation of the medical officers of a public institution, (the Aldersgate-Street Dispensary,) in consequence of the improper conduct of the

governors. The former question we shall, perhaps, return to again: the few words we have to offer upon the latter may be said now.

We have before had occasion to remark, that, in all institutions of human invention, there appears a natural tendency to decay, by the common process of selfish and inferior-minded men manœuvring themselves into the places held at first by the disinterested and the good. This seems to have been the case, in some sort, with the Aldersgate-Street Dispensary; but it also contained within itself a distinct germ of rottenness from the first, in that regulation which recognised the right to vote of any governor, immediately he had paid the guinea that bought him into the office. The consequence of this regulation has been, as was probably intended by its framers, an unbounded license of corruption in the election of almost every man who has held an office in the institution. Indeed it is nearly impossible that it should be otherwise. Men just joining an institution are rarely acquainted with the merits of the candidates who solicit their votes. The consequence of this has been, that at the Aldersgate-Street Dispensary, the medical officers represented to the governors the impropriety of a candidate being chosen for his talents in corruption rather than in his profession. The governors refused to repeal an obnoxious law whose only ill effect they thought was to degrade the profession; and thereupon the whole medical officers of the institution at once resigned. The names of these standers-forth, in a good cause, are not quite unknown: they are Drs. Birkbeck, Clutterbeck, Lambe, and Roberts, Physicians; and Messrs. Salmon and Coulson, Surgeons; late of the General Dispensary of Aldersgate-Street.

The resignation of six medical men was, of course, treated with contempt, by persons who thought hundreds of others would be at their beck, when the magic view, of public charity cloaking private gain, was opened to their eyes. But they were mistaken. The profession held together almost to a man. Public meetings were held, and addresses of approbation of their conduct were sent up from all parts of the kingdom to the ex-Medical officers of the Dispensary. Out of the entire ranks of the profession, but five men could be found, and those not till several weeks had elapsed, of the peculiar turn of mind that enables a man to attain a bad eminence amid the universal execration of his fellows. A sixth is still wanting: may it be long ere he is found.

We hail the public spirited conduct of the late Medical officers of the Aldersgate-Street Dispensary with the greater pleasure, that it shews a proper bond of union is beginning to be found in the profession. It has been long wanting—and it is owing to that want, that the modern healers of the sick have lost the high consideration, that, in times gone bye, was so willingly, nay, so eagerly paid to the professors of the healing art.

So much has been said on the subject of drainage in Calcutta, and it is one so important in itself, that some remarks upon it may, perhaps, be expected in a work dedicated, like ours, to the preservation of health and the cure of disease.

It is not our intention, neither is it our province, to enter upon the various methods of carrying off offensive matter from the city; but we may be allowed to remark, that there seem to be several ways in which the present system may be amended. Either new sewers should be constructed; or some mode contrived of quickly and completely emptying those we now have; or we should resolve to make the burthen lie as easy as may be upon them, if either of the former plans should be found impracticable on the score of expence.

No doubt, the best plan that could be adopted would be the construction of new sewers altogether, upon such a level as to allow of their being thoroughly cleaned and

washed out, by means of a reservoir* of water at the head, and flood gates at proper places in their course; and of a size that would admit of an examination of their interior at will. The reservoir might be filled by a steam engine and forcing pump in an easy and expeditious manner; but the expence of this scheme would be great. By the second plan, the cost of a new construction of sewers would be saved, but that of a reservoir, flood gates, and engine would remain the same. By the third, the evil may be partly remedied; it consists of the introduction of cess-pools; it is the least expensive, and probably the only practicable plan of the whole, under the low state of funds in which we are placed.

In the house of †Mr. McFarlane, there is a cess-pool of the description alluded to. It is a well, twenty-five feet deep, and about the diameter usual in common wells. Around it a wall is built up to the height of four or five feet above the ground. It is arched over, and the top is filled in so as to make a concave surface; in the middle of which a small grating is placed. Upon this concave surface, all the cooking vessels are washed, and the water runs through the grating into the cess-pool, while the thicker parts are caught, put into a basket, and carried away. The whole process is cleanly in the highest degree, and, so far as we know, there are no objections to the plan.

But objections have been made to it. It is said that unwholesome effluvia may arise through the grating, and from the surrounding earth, saturated as it must be with the water filtering from the well; and, moreover, that the waters of our tanks would, from the percolation of the fluid of the cess-pools, should they become general, ere long be corrupt.

The first of these objections can only be answered by experience. Conjecture opposed to conjecture is of no avail. At present, all that can be said is, that Mr. McFarlane's cess-pool does not seem to give out any such noxious effluvia. The matter of malaria is imperceptible but by its effects; but here no effects of malaria have occurred. As to offensive smells, none certainly arise. But there is really so little to go by at present, that we should be wanting in candour, did we not admit that no conclusion whatever can, as yet, be drawn.

With regard, however, to the corruption of the waters of our tanks, there are strong arguments upon which to build. One instance here, where the earth over the whole city is the same, is as good as a hundred: and this instance is afforded in a well in the neighbourhood of Mr. McFarlane's cess-pool. The shafts of the well and of the cess-pool are within six feet of each other; and whether the contents of the latter run through the earth into the former or not, matters but little: The water of the well is perfectly sweet. The example here given, affords a good reason, but common experience furnishes a better, for thinking that no evil can arise from infiltration of water from the cess-pools into the tanks. A few, a very few feet of earth are sufficient to purify the foulest water, from any matter with which it mixes, and which it does not dissolve.

But there is another point. What becomes of the water at present? Part of it dries up in the drains, no doubt, but the greater part sinks into the earth, and thence we may suppose into the tanks.

It is wonderful, however, what absurd lengths people sometimes run, when prejudice is allowed to usurp the place of thought. Men have been so long used to consider stench and unwholesomeness the same thing, that a great deal must be done ere they are convinced that, they are pretty well proved not to be so. The "wisdom of our ancestors" here more than equalled

* By a little additional expense this reservoir might also supply our streets, both for watering, and in case of fires.

† We are informed that there are other cess-pools in Calcutta made on the same principle, and acting with a similar good effect; but we mention Mr. McFarlane's as what we ourselves have seen.

our own; while the fact that the ancients did not entertain any such opinion, may be inferred from what is said of their filling their precious boxes with putrid fish, as a scent, rather than with spikenard and aloes: unless indeed, their notion of what is and what is not offensive to the nostrils differed from our own. This idea, of the wholesomeness of stinks, came down as before hinted to a later period than that of the Greeks and Romans, for we find a remedy for headache, more domestic than elegant, prescribed in the "Knight of the Burning Pestle," which seems to have been looked upon as one of a wonderful virtue, in the catalogue of an old woman's simples.

But late researches have set the subject as decidedly at rest as a thing of the kind can be. They have shewn that there is good reason to believe the stench arising from putrid animal matter, is not only, not unwholesome, but that it is actually conducive to health.

Bancroft was one of the first, if not the first, who denied the noxious influence of putrid animal matter. He founded his opinions upon the fact that no such influence was shewn in the famous exhumations at the Cemetière des Innocens, and at Dunkirk; that it appeared not at Seville, though the burial grounds were "sated with seven thousand bodies" emitting the most fetid exhalations, and they were visited daily by crowds of mourners: that anatomists, glue-makers, cleaners of necessaries, butchers, knackers, gut, and adipocire-makers, and all traders and manufacturers engaged in constantly handling putrescent matters, are particularly free from disease. Moreover, the celebrated Howard was told by the Governor of the French Hospital at Smyrna, that, though his house near the burial ground was rendered almost intolerable, by the stench of the bodies of persons who died of the plague, yet his family were remarkably healthy: and a merchant in the same city suffered the same inconvenience with regard to the stench, while he and his family enjoyed a like exemption from disease. Facts shewing, that however animal exhalations, during life, may give rise to disease; the putrid gases of the bodies of those who have died, even of the plague, are harmless. It is also said that during the great Plague of London, the carriers of the dead, grave diggers, and butchers, were very rarely affected.

Two members of the Paris Council of Public Health have also entered the lists on this side, MM. Parent du Chatelet and D'Arcet. They prove that putrid animal exhalations do not, as was at one time supposed, affect the decomposition of alimentary substances. In support of this opinion they shew, that victuals cooked, and uncooked, kept as well in the amphitheatre of anatomy in the Rue des Trois Portes behind the Hotel Dieu, as they did in the sweetest parts of Paris: although in that amphitheatre, the stench was so dreadful, that even the Commissioners of a French Police were compelled, by the people, to shut the institution up. Meat kept equally well, also, in other dissecting rooms of the city.

The knackeries of Montfaucon are also drawn upon, to shew not only the innocence, but even the wholesomeness of putrid animal exhalations; and very strong facts they give. There are more than 10,000 horses annually killed at Montfaucon; and their remains are used in a vast variety of disgusting manufactures. The hair, hides, flesh, bones, hoofs, and intestines are all used, and the refuse is left to putrify in the hot sun of a Parisian summer. The blood blackens upon the ground where it is shed; and heaps of intestines are purposely left to putrify, for the breeding of bushels of maggots, which are sold daily for the feeding of poultry. Yet in the midst of this enormous mass of corruption, people dwell; their victuals keep as good as victuals do in any part of Paris; and they themselves, and their families, are as healthy as, nay healthier than, those who live in sweeter abodes.

Further it is remarked, that the healthiest classes of men are those engaged in the filthiest of trades. Glue and size makers, buckram-makers, tallow chandlers, and tanners, have at all times been notable for a good state of health. Butchers, and their families, are almost always fat and rosy.

Orfila, in himself a host, has given his opinions to the world on this side also. He states the same facts as to the keeping of victuals in noisome places; and that putrid animal exhalations are not unfavourable to health.

In England, too, the subject has been canvassed with the same result. Facts have been made manifest, proving the innocence of these exhalations, and tending to shew something in them absolutely healthy. Night-men and their masters have, with one consent, joined in opinion as to the wholesomeness of their pursuits. While the history of English Anatomists lends its testimony to the same end. Almost all of them live to a good old age; and almost all are healthy men.

On the other side are ranged, vulgar prejudice, and Doctor Parsons. This gentleman's opinions are clearly given, but his facts are capable of opposing interpretations; and his reasoning upon them is inconclusive and vague. He has made no impression upon those capable of judging of the merits of the case, and there is nothing in his work worth transferring into ours.

Those who wish for more information on the subject may consult the work from whence much of the above has been drawn; the *Lancet* for 1830-31.

The following facts, therefore, seem to be clearly established:

1st.—That if putrid exhalations of animal matters are not absolutely wholesome, they are not injurious to health.

2d.—That the great public calamities known under the title of *plagues*, which have sometimes followed the exposure of a number of dead bodies, have not arisen, as has been supposed, from animal putrescent stench.

3d.—That individual cases of sickness and death, caused by exposure to the gases arising from putrid animal remains, owe their origin to some asphyxiating or depressing gas, such as sulphuretted hydrogen; and not to any specific noxious exhalation from those remains.

4th.—That, although there is reason to believe that animal exhalations, in certain diseases, are injurious to health; yet, after death, the putrid gases, of the remains of those who die even of the plague, are equally innocent with those of any other animal matter.

With regard to decaying vegetable matter, the case is different. The exhalations of such matter have been the subject of too many enquiries to allow a doubt of their unwholesomeness to be raised. So well, indeed, are the facts established, of the deleterious effects of marsh miasma, as it is called, that it would be waste of time to dwell on the matter longer.

It has been thought right to enter thus largely into the subject of putrid animal exhalations, because not only is it proper for the truth to be made manifest; but because great moral depression has often arisen from the idea of stench being unwholesome, and diseases have thus arisen that otherwise would never have been heard of. When the mind is depressed, the body is peculiarly liable to disease. Any thing therefore which makes a man believe himself to be placed in an unhealthy situation, is almost sure to become, remotely, a cause of his falling sick.

It by no means follows, however, that if putrid animal remains do not give immediate rise to disease, they should not therefore be removed. Comfort and policy demand that they should. The bulk of mankind will never become philosophers: they will continue in the prejudices of their fathers, till time shall gradually work a change; and so long as they have an idea of the unwholesomeness of a bad stench, so long will that stench, by inducing moral depression, be unwholesome to them.

It has been suggested, that, the mixture of animal and vegetable putrid substances may give rise to a miasma, which can be caused by neither separately. But in support of such a doctrine there does not seem at present to be any proof.

MEDICAL INTELLIGENCE.

General Orders relating to the Medical Service.

May 20th.—The Presidency Division Order of the 12th instant, directing Assistant Apothecary John Pitts, of His Majesty's 44th Foot, to act as Apothccary, in the room of Apothecary Hodgkinson, appointed to the Medical Depôt at Agra, is confirmed.

The District Order by Brigadier J. Tombs, Commanding the Rajpootanah Field Force, directing Guhun Chund Patuck, Native Doctor, invalided from the 1st May, to continue to do duty with the 32d Regiment Native Infantry, is confirmed.

Assistant Surgeon G. C. Rankin, at present attached to the 38th Regiment Native Infantry, is directed to proceed to Cawnpore, and do duty under the Superintending Surgeon at that Station.

Surgeon J. F. Royle (on Furlough) is removed from the 38th, and posted to the 26th Regiment Native Infantry. Surgeon B. Burt, M. D., is removed from the latter, and posted to the former Corps, which he will join forthwith at Benares.

22d.—No. 111 of 1834.—The following Students of the Native Medical Institution, are admitted to the Service as Native Doctors, to fill existing vacancies:

Shaikh Gholaum Alee—Laula Jhubboo Laul—Noor Khan—Mohammud Ibraheem—Hosain Bukhsh.

No. 112 of 1834.—Native Doctor Chedi Ghir, whose services are no longer required with the Grand Trigonometrical Survey, is permitted to accept the Situation of Head Native Doctor to the City Dispensary of Moradabad.

No. 113 of 1834.—The following Students of the Native Medical Institution, are admitted to the Service as Native Doctors, to fill existing vacancies:

Devi Lal—Brij Lal Singh—Bhowany Dheen—Shaik Jan Moohummud.

26th.—Mr. F. H. Brett, Assistant Surgeon, attached to the Civil Station of Moradabad, for two months, on private affairs.

29th.—The undermentioned Officer has returned to his duty on this Establishment, without prejudice to his rank, by permission of the Hon'ble the Court of Directors:

Assistant Surgeon William Miller Buchanan, M. D., of the Medical Department.—Date of arrival at Fort William, 24th May, 1834.

June 5th.—Assistant Surgeon James Richard Brien, of the 25th Regiment Native Infantry, to Officiate as Civil Surgeon at Akyab, during the absence of Assistant Surgeon Macintyre, or until further orders.

Assistant Surgeon F. H. Brett, attached to the Civil Station of Moradabad, has obtained, in the Judicial and Revenue Department, on the 26th ultimo, leave of absence for two months, on private affairs.

Subordinate Medical Department.—Hospital Apprentice James Hefferan to be Assistant Apotheeary, from the 28th May, 1834, vice Assistant Apothecary J. Marshall, deceased.

12th.—No. 121 of 1834.—The Honorable the Vice President in Council is pleased to direct, that the following Paragraph of a Letter from the Hon'ble the Court of Directors, in the Military Department, No. 1, dated the 15th January, 1834, be published in General Orders:

"Para. 2. Surgeon T. S. Child, of your Establishment, has been permitted to remain six months longer in this Conntry."

The undermentioned Native Doctors are placed at the disposal of the Major General in Command of the Forces:

Kunhera Laul Dhoby—Shaikh Moorad Bukhsh—Brij Laul Singh—Shaikh Jan Moohammud—Shaikh Gholam Alee—Hosain Bukhsh—Laula Jhubboo Laul—Noor Khan.

No. 123 of 1834.—Imaum Bukhsh, Native Doctor, attached to the Establishment of the Commissioner in Arracan, is appointed Native Doctor to the Civil Station of Futtehpore, vice Deenah discharged.

Mohammad Ibrahim is appointed Native Doctor to the Commissioner in Arracan, vice Imam Buksh transferred to the Civil Station of Futtehpore.

16th.—The following Officer has obtained leave of absence from his Station:

Mr. G. N. Cheek, Assistant Surgeon, attached to the Civil Station of Burdwan, for three months, on private affairs.

19th.—*Letter No.* 4, *dated* 22*d January*, 1834.—"Para. 2. The undermentioned Officer, belonging to yonr Establishment, has been permitted to remain in this Country for the further period stated against his name:

Surgeon William Hamilton, six months.

Assistant Surgeon James Steel, M D., to the Medical charge of the Civil Station of Gorruckpore, vice Assistant Surgeon J. Colvin, proceeded to Europe on Furlough.

The undermentioned Officer has returned to his duty, on this Establishment, without prejudice to his rank, by permission of the Hon'ble the Court of Directors:

Assistant Surgeon William Scott, of the Medical Department.—Date of arrival at Fort William, 13th June, 1834.

J. B. Tassin lith.

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Original Communications.

REMINISCENCES OF FRENCH SURGERY—No. IV.

The drawing annexed to this brief communication is intended to illustrate an extraordinary tumour of the eye, in a case which came under the Baron Dupuytren at the Hotel Dieu. The patient was about thirty-five years of age, and had two years before received a kick from a horse on the right eye. Considerable inflammation and swelling took place, and though various remedies had been applied by the practitioner of the village where the accident occurred the tumour increased, pushing down the eye upon the cheek, and presenting a very frightful appearance. He could however still see through the protruded eye, though not very distinctly. But he was alarmed at the progress of the disease, and determined to visit the capital, and try if any thing could be done for him. He came to the Hotel Dieu on the 2d November 1829, but Dupuytren, after examining the part carefully, did not think it quite safe to risk an operation, and the man went away disappointed. On re-considering the case, however, and fortified by the opinion of the venerable Boyer of La Charité, who believed it to be a distinct tumour, which might be prudently removed, Dupuytren undertook the operation. November 20, he made a vertical incision (see the drawing) down to the eye on the cheek, and expertly dissected out the tumour, together with the ball of the eye through the same opening. The tumour was about four inches in diameter, its substance organized and spongy. The whole of the diseased mass thus being removed, he filled up the cavity with pellets of charpie and powdered rosin to check the hemorrhage, and closing up the incision which had left the eye-lid entire, secured the part with a suture and bandages. November 23d, the patient has been bled three times since the operation, and is doing well. It was at first thought that the tumour might have been removed, and the eye ball re-placed in its socket, but it was again considered that severe inflammation might have supervened, and endangered the man's life. Dupuytren therefore resolved upon extirpating the whole at once. Early in December the cure was complete.

JAMES ATKINSON.

Barrackpore, June 15, 1834.

WRAY'S CASE OF ABSCESS OF THE LIVER.

Thomas Synnott, Private H. C. European Regiment, admitted 8th December, 1833, aged 28 years, constitution good, 9 years in India, complains of purging, griping, and tenesmus, which he says he has had for four days, the motions have not been kept and he does not know whether he passed any mucous, or blood or not—R. Hyd. Sub. Mur. gr. x.—Antim. Tart. gr. i. ft.—Pil. Statim.—R. Ol. Ricini. ℥i. 4 hours after.

December 9th.—Is better and has not so much griping as yesterday, medicine operated freely—R. Hyd. Sub. Mur. gr. iij. —Ipecac. gr. ij.—Opii. gr. ss. ft. pil. ter die.

10th.—Had no motion in the night, and says he feels quite well—Cont. Pil. bis. die.

Vespere.—Has had two natural motions and continues well—nil.

11th.—Discharged.

January 25th, 1834.—Has just been readmitted with very acute pain in the right side at the inferior margin of the false ribs which came on in the night, and is much increased on pressure—he has been bled since admission to approaching syncope and lost ℥xxx. but without relief—the pulse was quick and full but not hard, it is now soft and very little accelerated—skin cool—App. Hirud. No. xxx. part. dolent. et. fot. calid. a large blister to be applied if the pain is not relieved by leeches and fomentations.—R. Ol. Ricini ℥i. cum.—Ol. Tiglii. gtt. i. Statim.—Adm. enema. purg.—at 11 A. M. to have spoon diet.

Vespere.—The pain of the side was relieved by the leeches for a short time only, and he had the blister applied which has risen well, the pain has again returned and is now acute, coming in stitches and prevents his breathing freely—the pulse is frequent but soft and easily compressed—has urgent thirst but the skin is pretty cool and moist—the Oil operated freely seven or eight times—motions oleaginous, and of a dirty color—Venesection to faintness or relief of pain lost ℥xxx.—R. Hyd. Sub. Mur. gr. v.—Antim. Tart. gr. i. ft. pil. ter quaterve die—R. Mist. Febrifug. ℥ij. tertia quaquehora.

26th.—The pain in the right Hypochondrium immediately under the margin of the ribs, still continues very acute—the pulse is 96 and sharp, but easily compressible—says he had 4 motions—R. Ol. Ricini. ℥i. c. Ol. Tiglii. gtt. i. statim.—Adm. enema. purg. at 10 A. M.

In the night, he lost ℥xxx. of blood, but did not get relief—the blistered surface does not discharge very freely—Cont. Pil. et Mist. blistered surface to be dressed with savine cerate.

Vespere.—Is somewhat better, but still has pain in the right side striking up to the shoulder—the skin is hot—pulse quick but soft, tongue clean—Cont. Pil. et Mist.

27th.—Continues to have acute pain in the right side striking up to the shoulder and across to the back, pulse quicker and fuller this morning—skin pretty cool and moist—had only one motion in the night, but was freely purged yesterday—tongue white but not much loaded—Venesection to Syncope, lost ℥xxx. Cont. Pil. et Mist.—R. Haust. Jalap C. ℥ij. at 11 A. M.—Adm. enema purg. at 2 P. M. if the Jalap does not operate freely.

Vespere.—The pain of the side was considerably relieved by the bleeding and he feels now much easier, but the pain returns on moving or coughing, pulse 90 and quite soft—skin cool and moist—the Jalap operated five or six times freely, motions high-colored and tenacions—Cont. Pil. et Mist.

28th.—The pain of the side is much less this morning, and he does not feel it except on moving sharply—the pulse is 96 and soft—skin cool and moist—had four feculent motions in the night—the pills produced great nausea and he vomits immediately after taking them—Cont. Pil. Calomel gr. iij. c. Antim. Tart. gr. ss. ter die—Cont. Mist. febrifug.

29th.—Says the pain of the right side returned in the night by trying to lie upon it, and he cannot bear to turn on his left side at all—the pulse is more frequent this morning, being 108, and rather sharp—skin hotter and rather dry—had four or five high colored motions—the thirst continues and is now urgent—mouth not yet affected—App. Hirud. No. xxx. Hyp. dext.—R. Ol. Ricini. ℥i. Ol. Croton Tiglii. gtt. i. Statim.—Cont. Pil. tertia quaque hora—Frictn. Ung. Hyd. ℥i. femor. ter die—Cont. Mist. febrifug.

30th.—The pain of the side still continues acute and is increased on pressure—the pulse is 108 and rather sharp, but not hard—he had 8 or 9 motions yesterday from the oil, feculent but oleaginous and greenish—has had three more during the night, oleaginous and green—the pain strikes up to the right breast and prevents his taking a deep inspiration—skin cool and pretty moist—mouth slightly affected—App. Hirud. No. xxx. Hyp. dext. et Epigast.—R. Haust. Jalap C. ℥ij. Statim.—Cont. Pil. et Unguent. Rep. Mist. febrif.

31st.—Says he feels much better this morning and slept pretty well—there is now very little pain of the side—the pulse is frequent and full but not hard—he had eight or nine motions from the jalap, and one in the night feculent but green—tongue cleaner—skin cool and moist—mouth more affected—R. Ol. Ricini ℥i. Statim Cont. Pil. et Ungt. Rep. Mist. febrif.

February 1st.—The pain of the side is somewhat easier, but he still feels it acute on pressure being made over the region of the liver, and there is some fulness and tension in the right hypochondre—the pulse is soft, but continues quick, 108—had three feculent motions during the night, of a light yellow colour, and oleaginous—tongue clean and moist, and a little sore, but no ptyalism—R. Haust Jalap C. ℥ij. Statim App. Hirud. No. xxx—Fotus Calid. Etpostea—App. Emp. Lyttæ. Mag.—Hyp. Dext.—Cont. Pil. et Mist.—Cont. Ung. Hydrarg.

2d.—Is now quite free from pain of the side, and there is less fulness and tenderness on pressure—the pulse is quite soft and little accelerated—had five light-colored motions in the night, without griping or tenesmus—the gums are sore, but very little ptyalism—R. Pil. Purg. No. iij. Statim—Rep. Pil. bis. die—Frict. Ungt. bis. die.

3d.—Says he has no complaint, except debility. Ptyalism rather more free—skin moist—pulse soft and little accelerated—Cont. Pil. h. s.—Frict. Ungt. Hydrarg. at 11 A. M.—milk diet.

4th.—Continues to improve—had three motions during the night, which are feculent, but rather light colored—he continues quite free from pain, but feels very weak—Omit. Ungt.—Cont. Pil. h. s.—R. Infus. Gentian ℥i. Mist. Camph. ℥i.—M. ft. Haust. ter die.

5th.—Continues free from pain, but has been six or seven times at stool—motions light colored—pulse rather frequent but

soft—R. Pulv. Rhei. ℈i. Magnes. Carb. ℈i. Aquæ. Menth. ℥i.—ft. Haust. Statim.

Vespere.—Has had 4 or 5 motions of a more natural color and consistence—pulse less frequent—R. Pil. Hyd. gr. ij. Ipecac. gr. ij. Ext. Gentian gr. ij. M. ft. Pil. ter dic.—Cont. Mist. et Pil.

6th.—Has had no return of pain and feels pretty well, but very weak, the motions are of a natural color and consistence—Cont. Pil. et Mist.—two measures of wine and pudding.

7th.—Had four motions in the night, of a light yellow color, attended with a little tenesmus, but no griping—the pulse quite soft—R. Ol. Ricini ℥i. Statim—Cont. Pil. C. Opio. gr. ss.—Cont. Mist. cum. Infus. Amar.

9th.—Is now out in the Dhooly—he is convalescent and improving daily—Omit. Pil. Cont. Mist. R. P. Quinine Sulph. gr. ij. ft. Pil. ter die.

10th.—Continues weak, but is quite free from pain—had two motions in the night, which are light colored—tongue clean—pulse soft—Omit. Pil. Quin. Sulph.—Rep. Pil. Hyd. c. Ipecac. et Ext. Gentian—Cont. Mist.—R. Pil. Purg. ij. statim.

11th.—Motions feculent but light colored, otherwise improving daily—Cont.

12th.—This poor fellow was attacked again last evening about 6 o'clock, with acute pain in the right hypochondrium and epigastrium, for which he had twenty-four leeches applied, which relieved the pain for a time, but it afterwards returned and is now acute, and increased on pressure—the pulse is quick, but weak, and very easily compressed—the skin is rather hot but moist—he had two liquid sandy-looking motions in the night—App. Hirud. No. xxx—Hyp. dext. et Epig.—R. Ol. Ricini ℥i.—Fotus Calid frequent Hyp. et Epigast—R. Hyd. Sub. Mur. gr. iij. Ipecac. gr. ij. Opii. gr. ss. ft. pil ter die—R. Mist. Febrifug. ℥ij. tertia quaque hora.

13th.—Is nearly quite free from pain of the side this morning, and the pulse is soft and a little accelerated—skin cool and moist—was purged seven times yesterday from the oil, but has had no motion in the night. —App. Emp. Lyttæ. Hyp. Dext. et Epigast.

14th.—The pain in the side has increased a little, and the pulse is quicker, but not hard—says he did not sleep well—had three or four light greenish feculent motions in the night—the blistered surface runs very freely—tongue tolerably clean—R Haust. Jalap C. ℥ij. Statim—Cont. Pil. c. Pil. Hyd. loco Hyd. Sub. Mur.—Rep. Mist. Febrif. vel. Haust.—Efferves. tertia quaque hora.

15th.—The pain of the side is somewhat less, but not quite gone—the jalap operated freely five times and he has had two motions in the night, which are of a light greenish color and oleaginous—the pulse is now 96, but pretty soft—tongue clean—the blistered surface discharges very freely.—R. Ol. Ricini ℥ss. statim—Rep. Pil. Hyd. c. Ipecac. gr. i. et Ext. Hyosciami gr. j. loco Ext. Gentian—Cont. Mist. Febrifug.

17th.—Is quite free from pain of the side, but says he did not sleep well—the pulse is quite soft and little accelerated—had no motion in the night, but had three pretty natural ones yesterday—Cont. Pil. et Mist.—Fowl stewed.

19th.—Has again slight pain of the right side, and there is considerable fulness of the right hypochondrium, and I fear, abscess has formed—the bowels were moved twice in the night—motions light colored—pulse 96, and soft—tongue pretty clean—App. Hirud. No. xij. Hyp. dext. Cont. Pil. c. Quininæ Sulph. gr. ij. ter die—Cont. Mist.

20th.—The pain of the side was relieved by the leeches, but he still feels pain on taking a deep inspiration, and the liver is evidently much enlarged, being several inches beyond the cartilage of the ribs—the pulse is quick, 108, and weak—tongue clean—had one copious feculent and healthy looking motion in the night—App. Hirud. No. xij. Hyp. dext.—Cont. Pil. et Mist.

21st.—Has had no return of pain of the side, and says he feels better this morning than he has done since he came into Hospital, slept well, pulse quite soft and little accelerated—bowels open—motions natural—Cont. Pil. et Mist.

23.—Continues to improve slowly—Cont.

25th.—This poor fellow was attacked again in the night with very acute pain in the right side, extending from the angles of the ribs to the epigastrium, and it is much increased on pressure—the pulse is 96, and weak—skin moist—he had three or four light coloured feculent motions in the night—App. Hirud. xxx. lateri dextri et Epigast. postea Fotus Calid et Emp. Lyttæ. Mag.—R. Ol. Ricini. ℥i. c. Ol. Tiglii. gtt. i. statim—Rep. Mist. Febrif. c. acet. Colch. ℥ss. ter die—Omit Pil.—Low diet.

Vespere.—The pain of the side was much relieved by the leeches, but returned again, though not so severe, about two hours after—the blister rose well and is now painful, and discharging freely—pulse soft—skin moist—bowels have been purged 6 or 7 times by the oil—motions oleaginous, but of a natural color—R. Mist. Camph. et aq. menth. aa. ℥i. Tinct. Hyosciami ʒi. h. s.—Cont. Mist.

26th.—Says, he slept well last night, and feels quite free from pain, except from the blistered surface—bowels regular and motions natural—pulse quite soft and little accelerated—tongue clean—skin moist—Cont. Mist.

27th.—Had two feculent though rather light coloured motions during the night, the side continues easy—pulse soft—tongue clean—Cont. Mist. febrif.—R. Pil. Hyd. gr. ij. P. Ipeeae. gr. ij. Ext. Gentian gr. ij. ft. Pil. bis. die.

Vespere.—Has had three motions of a more natural colour, is free from pain—Cont.

28th.—Is now quite free from pain, except from the blistered surface—pulse less frequent and soft—skin moist—tongue clean—had two healthy looking motions in the night—Cont. Pil. et Mist.—Milk diet.

March 1st.—Is not quite so well this morning, having been purged four or five times during the night—the motions are light coloured and liquid—pulse quicker, 96, and rather sharp—the tongue is furred in the centre—skin hot and moist—Rep. Pil. Hyd. gr. iij. Ipecac. gr. ij. e. Sulph. Quininæ gr. i. loco. Ext. Gentian ft. Pil. ter die. Cont. Mist.—R. Pulv. Rhei. et Mag. Carb. aa. ℈i. aq. Menth. ℥i. ft. Haust. Statim.

2d.—Was four times at stool yesterday from the medicine, and has had three motions in the night, feculent but still light coloured and rather oleaginous—Cont. Pil. et Mist.

3d.—Was attacked again in the night with very acute pain in the right side, extending from the angles of the ribs to the epigastrium, there is extreme tenderness and considerable fulness in the right hypochondrium, and the ribs of the right side are much bulged—the bowels were moved four times during the night—motions quite white and oleaginous—the pulse is now 104 and weak—tongue furred in the centre—App. Hirud. No. xx. Hyp. dext. et lateri dext postea Fotus Calid frequent et Catap. Mag.—R. Hyd. Sub. Mur. gr. x—Ext. Colocynth Co. gr. x. ft. Pil. iij. Statim.—Cont. Pil. Hyd. c. Ipecac. et Ext. Hyosciami gr. ij. loco Quininæ Sulph.—R. Haust. Efferves. tertia quaque hora.

Vespere.—The pain in the side continues, though not quite so acute—the pulse is now 96, and quite soft—skin cool and moist, has had 5 or 6 very light coloured oleaginous motions—skin moist—v. Rep. Pil. c. Pil. Hyd. gr. iij.—Cont. Haust. Hyosciami h. s.—Cont.

4th.—Has had very acute pain in the whole of the right side extending from the back to the epigastrium, which prevented his sleeping at all—the pulse is very quick and sharp, but at the same time weak—he has had four or five liquid and very light coloured motions—the tongue is a little furred in the centre—Rep. Pil. c. Hyd. Sub. Mur. gr. ij. loco Pil. Hyd. et add. Ext. Hyosciami gr. iij. ft. Pil. ter die—Cont. Haust. Efferves.—App. Hirud No. xij. later. dext—Postea. App. Emp. Lyttæ Magn.

Vespere.—The pain of the side is now much easier, and pulse soft and less frequent—has had only one liquid light coloured motion—tongue moist—Cont.—Low diet.

5th.—The side is not quite so painful this morning, but he feels very weak—slept tolerably well—complains of urgent thirst—had no motion in the night, but has had three light coloured oleaginous ones this morning—pulse 96 and soft—tongue pretty clean—Cont. Pil.—Fricti. Ung. Hyd. ℥i. ter die femor—Cont. Haust.

Vespere.—The pain of the side is somewhat easier, but feels the blistered surface very painful—pulse less frequent and soft—has had three feculent motions of a more natural colour and consistence—gums a little tender—Cont. Pil. et Haust.—Rep. Ung. Hyd—R. Pulv. Ipecac. C. gr. xij. h. s.

6th.—Pain of the side is easier, but the blistered surface continues very painful—the pulse is less frequent and soft—tongue clean and moist—had only one motion in the night, feculent, and of a more natural colour and consistence—Cont. Pil. Mane et Vesp.—R. Mist. Purg. ℥iij. Statim.

Vespere.—Has passed a quiet day and slept several hours—pulse soft—bowels open—Cont.

7th.—Slept well till 3 o'clock, and has been easy since—three motions in the night—pulse quite soft and less frequent—tongue pretty clean—gums slightly affected—Cont. Remedia.

8th.—Has passed a good night and slept well—he has no pain except from the blistered surface—had two natural motions, and can take a deep inspiration without pain—pulse soft and little accelerated—Cont. Haust. et Rep. Pil. c. Pil. Hyd. loco. Hyd. Sub. Mur. bis die.

9th.—Continues free from pain of the side, except occasionally a slight stitch after moving quickly—the bowels have been moved three times during the night—motions of a natural color and consistence—pulse soft but rather frequent—Cont.

10th.—The pain of the side continues less, but there is still considerable fulness in the right hypochondrium—gums remain a little tender with trifling Ptyalism—bowels regular, and motions pretty natural—Cont. Remedia.

12th.—Still continues to have a good deal of fulness in the right hypochondrium and bulging of the ribs of the right side, but is quite free from pain, and is much improved in health—gums continue sore and Ptyalism free—bowels regular, and motions natural—Cont. Haust.—Omit. Pil. et Unguent—*Vespere* Habt. Gargar. c. Decoct Cinch et Acid. Rep. Haust. c. Tinct. Hyosciam ℥i. h. s.

13th.—The right side was again attacked with pain in the night, more particularly at the angles of the ribs, occasionally striking up to the shoulder—the pulse is 96, and rather sharp—skin hot and clammy—gums continue sore and Ptyalism free—had two motions in the night, quite white tho' feculent—App. Hirud. No. xx. lateri dext postea. Fotus Calid. frequent—App. Emp. Lyttæ at 3 P. M.—R. Pil. Purg. No. ij. Statim—Cont. Mist. febrif. ℥ij. c. Antim—Tart gr. ss. ter quaterve die—Omit Pil. Calomel.

14th.—Has passed a pretty quiet night, but did not sleep well, and says he feels the pain again in the side this morning—pulse rather frequent but soft—had several motions yesterday from the pills, and has had three in the night, which are of a more natural colour than yesterday—R. Pulv. Ipecac. Co. gr. xij. bis in die—Cont. Relique.

15th.—Pain in the side continues much the same as yesterday, but slept four or five hours—pulse is rather quick but soft—had two liquid motions in the night—side more bulged and greater fulness in the epigastrium—Cont. Remedia.

Vespere.—Has had more pain in the right side nearer the breast, and he has been six or seven times at stool—motions light-colored, and yeasty—pulse more frequent and sharp—skin hot and clammy—mouth still very sore—Rep. P. Ipec. c. gr. xij.—Rep. Haust. Hyosciam h. s.—Cont. Relique.

16th.—The pain of the side is much easier this morning, and slept pretty well, had six motions in the night.—Cont.

Vespere.—Has been again frequently at stool, but the motions are of a more natural color and consistence—pain has not returned—pulse soft.—Cont.

17th.—Had six or seven motions during the night of a light color and oleaginous, and had some pain in the right hypochondrium during the night—pulse rather quicker and skin hotter.—R. Pulv. Rhei. et Mag. Carbon. aa ℈i. ft. Pulv. Statim.—Cont.

Vespere.—The pain in the side has been very acute since morning, striking up to the shoulder, there is very great fulness of the side and a distinct fluctuation between the 7th & 8th true ribs, and by pressure on the part it causes a fulness and fluctuation in the right hypochondrium and acute pain: the whole of the inferior ribs of the right side very much bulged,—the pulse is very frequent and full,—skin clammy and hot,—has had five or six motions of a light colour and much chopped—he has urgent thirst and anxiety of countenance—the tongue is furred at the base.—App. Hirud. No. xx. later. dext. et Hyp. dext. postea fotus Calid. et Cataplasm. Sem. Lini. Mag. to the whole side—Rep. Haust. Hyoscyam h. s. e. Pulv. Ipecac. C. gr. xij.—Cont. Haust. Efferves.

18th.—Has passed a very restless night, but the pain of the side has not been so acute as it was yesterday, there is less fulness in the right hypochondre, but more in the side, at the angles of the ribs, more particularly between the 7th and 8th ribs—the pulse is 108, and soft, skin moist—bowels moved five or six times.—Cont. Cataplasm. —Rep. Haust. Efferves. c. Tinct. Hyosciami ℥ss. ter quaterve die.

Vespere.—The side has been more painful, and he has also had more pain in the shoulder, the fulness in the side is greater, but there is less fulness in hypochondrium—pulse soft and rather less frequent—has been six or seven times at stool—motions still light colored and chopped.—Rep. Pulv. Ipecac. C. gr. xij. h. s. c. Haust. Hyosciami —Cont. relique—pudding, two measures of port wine with sago.

19th.—I have just punctured the most prominent and fluctuating part between the 7th and 8th ribs with a scalpel, making an incision of about 2 inches along the upper edge of the 8th rib, and discharged about a pint and a half of thick pus, which has reduced the fulness of the hypochondrium, and the ribs are much less bulged—the patient bore the operation well—App. Cataplasm. later dext.—Cont. remedia—Rep. Haust. Hyosciami. et Pulv. Ipecac. C. gr. xij. Statim.

Vespere.—Has passed an easy day and has very little pain in the shoulder, and none in the side, the pulse is frequent but soft, tongue pretty clean—Cont—Rep. Haust. et Pulv. h. s.—Two measures of wine extra.

20th.—Has slept about 5 hours and has no pain of the side, but feels the pain at the top of the shoulder more severe—there has been very little discharge from the wound, which appears to be prevented by the ribs, having collapsed—the pulse is frequent 108, but soft—had three or four motions of a natural colour and good consistence,—a sponge tent to be put in the orifice Rep. Haust. Hyosciami et Pulv. Ipecac. C. Statim.—R. Quininæ. Sulp. gr. ij. acid Sulph. dil. gt. x. Mist. Camph. ad ℥i. ft. Haust. ter die—4 measures port wine, with sago and arrow-root.

21st.—There was a very great discharge from the puncture last evening after I left the Hospital, amounting to upwards of a quart, or as the patient expressed it nearly a gallon, and upwards of a pint has now been discharged, the pus appears healthy—

pulse soft, and 104,—tongue pretty clean,—skin cool and moist.—Cont. Remedia.

Vespere.—Feels quite lively this evening and pretty free from pain,—there has been about 8 oz. of thick healthy pus discharged from the puncture,—bowels have been moved 7 or 8 times, and says he is annoyed by the piles.—R. Ol. Ricini ℥ss. Statim—Cont. Utatr. Ungm. Hœmorroird.—1 bottle of beer, a third of it to be taken with the yolk of an egg, three times a day.

22d.—There has been very little discharge from the side this morning, and that liquid, and nearly transparent, apparently serum only—he did not sleep during the forepart of the night, but had no pain, and has slept since 2 A. M., pulse soft and 96,—tongue clean,—appetite pretty good,—the oil operated three or four times,—motions of a natural colour and less chopped—Cont. Haust. Quininæ—R. Mist. Ferri. Comp. ℥iss. bis vel ter die.

Vespere.—Has passed a very easy day, and says he has not felt either pain or ache to-day, pulse soft—Cont.

23d.—Has slept well and feels quite free from pain,—there has not been much discharge, about ℥ij. of a thin reddish serum or fluid—pulse quite soft and less frequent—appetite improving—tongue clean.—Cont.

Vespere.—Has passed a quiet easy day, and about the same quantity of pus or serum as in the morning and of the same colour—Cont.—chicken broth.

24th.—Had another good night and feels quite free from pain, and the discharge more purulent, but not increased in quantity—pulse 96 and soft,—tongue clean,—bowels moved once in the night—motions perfectly natural, both in consistence and colour—R. Haust. Jalap C. ℥iss. Statim—Cont. Mist. Ferri. et Haust. Quininæ.

Vespere.—Has been well throughout the day. Jalap operated four or five times motions feculent, but rather light coloured,—pulse quite natural,—skin cool,—the discharge trifling, not more than ℥ij.—Cont.

25th.—Says he fell asleep immediately after supper last evening, and slept sound all the night—he now feels well and free from pain—had only two motions in the night—tongue clean—pulse 90 and quite soft—Cont. Mist. et Haust.

Vespere.—Again passed a very good day, and feels no pain whatever,—appetite good—bowels regular and motions natural—pulse soft and little accelerated—tongue clean.—Cont.

27th.—Continues well and slept well—the discharge is not more than ℥iss.—pulse quite soft—Cont.

From this time the patient continued to go on favourably—the discharge gradually diminishing. By the 15th April the wound in the side had healed—and the appetite became good—on the 21st April he was discharged well.

OCTAVUS WRAY, *Surgeon,*
European Regiment.

Dinapore, April 30th, 1834.

BURT'S CASE OF CHOLERA.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—Should you consider the accompanying case of Cholera worthy a place in your Journal, it is much at your service.

Your's faithfully,
J. W. BURT.

Previous to detailing the following case, it may be proper for me to observe, that at the time it occurred, the Cholera was raging extensively amongst the native population in the town and bazaar at the station; and every inducement was held out to the natives to apply without delay in all cases of Cholera, either at my house, the Hospital, or the thannah; at which places medicine was kept ready for distribution. A considerable number did apply for relief, and amongst them the man whose case I am about to relate; and as the success attending the administration of the medicine was at that period so very gratifying, and previously, and subsequently, has far exceeded my most sanguine expectations, I shall add to the formula of the pills, the instructions which were sent with them to the thannah.

Each pill was composed of assafœtida two grains, opium two grains, and cayenne pepper two grains. One of the pills was directed to be taken as soon as possible after the person was attacked with Cholera; and the dose to be repeated every half hour until the vomiting and purging ceased. The pills *were not to be swallowed entire,* but *to be chewed;* and as they were dissolving by *the saliva,* and process of mastication, the fluid part was to be swallowed. (Insignificant as this may appear, I have found it of importance in practice; for in the cases wherein the pills had been swallowed whole, or had been mixed with water, and drank; they were not for the most part followed by such happy results as they were in those cases in whieh they were gradually swallowed with the saliva.) The patient was cautioned to abstain from

drinking cold water; but to alleviate the distressing thirst which commonly attends the disease,—brandy and water, in small quantities, was directed to be given occasionally.

From two to five of the pills were generally sufficient to stop the progress of the disease; and in the majority of the cases no other medicine was required for the removal of it.

As all the ingredients for compounding the pills are procurable in almost every bazaar, there is no difficulty in obtaining a supply; (the following are their Bengalee names, "Heeng," "Afeem," "Gach-moreech,") and should any of your readers feel disposed to make a trial of the pills when any cases of Cholera occur in their neighbourhood, and a medical practitioner not immediately available, I only hope they will find them prove as efficacious as I have known them.

But I must apologize for this digression and transcribe the case.

August 17th.—At noon I was requested to visit —— a native, who had been some hours ill with Cholera, and was not expected by his friends to survive. On my arrival at his house I was told that "he (whom I had previously known a healthy strong man) had been attacked early in the morning with vomiting and purging. About 8 o'clock, A. M., he had commenced taking the pills (before-mentioned.) He had taken five pills, which had stopped the vomiting and purging, but as he was getting colder, and the spasms were violent, his friends became alarmed and sent for me."

His countenance betrayed extreme anxiety; his eyes dull, and sunken; and his features contracted. The skin of his hands and feet corrugated. Extremities cold; and a cold clammy sweat diffused over the body. Violent cramps of the muscles of the extremities and abdomen. Spasms of the muscles of the lower jaw, sufficiently violent *to firmly lock the jaws* during their presence. Pulse small, irregular, and scarcely perceptible at the wrist. Voice unnatural. He is quite sensible, and complains of great pain during the spasms.

A piece of wood to be placed between the teeth, and kept there, so that the mouth may remain sufficiently open to admit a tea spoon.

R. Sp. Æther Sulph. 3j.
Tinct. Opii ℥xl.
Mist. Camph. ℥j. M. ft. Haust.
To be taken directly, and repeated every hour.

The skin covering the muscles of the lower jaw to be rubbed with Sp. Ammon. Comp. during the spasmodic action of those muscles.

Four persons were directed to constantly rub the abdomen and extremities, with pieces of blanket occasionally moistened with Sp. Terebinth.

To allay the thirst, and at the same time support the patient, a tea-spoonful of thin arrow root mixed with Port wine, was ordered to be given frequently.

3 o'clock, P. M.—Two of the camphorated draughts have been taken, and the friction has been applied as directed.

The extremities are less cold; and the spasms are not so violent.

The pulse can now be felt distinctly at the wrist; small, frequent, but more regular. He has taken some arrow root and wine several times.

R. Sp. Æther. Sulph. ℥l.
Tinct. Opii. ℥xxv.
Mist. Camph. ℥i. M. ft. Haust. to be taken immediately.
Continue the friction as before.
Give the arrow root and wine as required.

7 o'clock P. M.—The spasms are reduced to slight and unfrequent twitchings. The extremities are very much warmer. He complains of no pain; but says his head is very heavy, and he wishes to go to sleep. He has been drowsy—pulse regular, softer, and fuller. He has taken arrow root and wine, and is much less troubled with thirst.

The lower extremities were ordered to be wrapped in a blanket; and the abdomen and upper extremities covered with flannel.

Heated bricks to be kept near the soles of the feet and palms of the hands.

The friction to be suspended, and the patient kept as quiet as possible; but to be carefully watched; and should the spasms return, or the extremities become cold, the rubbing to be renewed, and persevered in as before; and the following draught to be given without delay:

R. Sp. Æther. Sulph. 3i.
Tinct. Lavandul. C. 3iss.
Mist. Camp. ℥i. M. ft. Haust.

18th.—He has passed a tolerable night, and slept at intervals. The draught had not been taken, or the friction repeated. He is free from spasm. The extremities are of natural temperature. Pulse improving. Spirits good. Says he feels much better, but complains of his head.

R. Ol. Ricini ℥ij.
Ol. Menth. Pip. ℥ij M.
To be taken directly and repeated every two hours until the bowels are freely operated on.
Sago to be given occasionally.

6 o'clock P. M.—Two doses of the castor oil produced copious and discoloured evacuations, which have much relieved his head. Pulse improving. He has taken some sago (made thin,) during the day.

He is in every respect better than he was this morning.

R. Calomel, gr. viij.

Ext. Coloeynth Comp. gr. v.

Ol. Carui, ɱij. M. ft. Pil ij. to be taken directly.

19th.—The pills operated during the night. The alvine discharge copious and feculent; and the bowels are now under the influence of the medicine. He has had some refreshing sleep during the night. He says he is well, only feels very weak.

From this period nothing worthy of remark occurred. His bowels were kept in order by occasional doses of aperient medicine; and he gradually recovered his health and strength.

The perusal of Mr. Raleigh's remarks on Cholera, published in your Journal No. 5, has induced me to send you this case; and I offer it as one instance (and no doubt many similar ones may be brought forward by Medical Officers in this country of greater experience than myself) in which the adoption of the once established general rule "to bleed in every instance, and in every stage of the disease, if blood could be obtained," would most probably have been followed by the death of my patient.

I do not presume to offer an opinion as to the efficacy of bleeding in Cholera; but merely give a general statement of what has come under my own observation. I have had but few opportunities of attending cases of Cholera amongst Europeans, or robust Natives of the Upper Provinces. My patients have for the most part been the prisoners in the Jails, and the Native inhabitants of the stations to which I have been attached; and of the neighbouring villages; and I have seen very few cases of Cholera amongst them, in which I could have considered myself justified in using the lancet.

I beg further to observe, that none of the persons who were so constantly and closely in attendance in the foregoing case; nor any of the man's family who were living with him at that time, were in the least infected by the disease.

I have seen repeated instances of only one person in a family being attacked with Cholera, and the other inmates of the house escaping, although employed in attendance on the sick person; and where no precautionary measures were taken to prevent the spreading of contagion, had any existed. Nor have I observed the admission of Cholera patients into the Jail Hospitals, followed by any extraordinary spreading of the disease amongst the other patients. Cases have occasionally occurred of the disease attacking other patients, after such admissions; but I have known Cholera attack patients in the Hospital, at times when no person labouring under that disease had been admitted.

Furreedpore, 15th May, 1834.

BURNARD'S CASE OF EXTENSIVE POISONING.

On the morning of the 26th February, 1834, I was summoned by an early and hasty message to the City Hospital, where it was stated, that a number of persons were being brought in labouring under symptoms of poison, and that many were already dead from the same cause. On my arrival, I learnt, that a number of men, about seventy, had been drinking at a Native spirit shop the evening before, and that shortly after the whole of them had been attacked with the symptoms for which my aid was requested. Eighteen had died before being brought to the Hospital, and the number of those brought in for treatment speedily, amounted to forty-three. The symptoms under which they laboured were heat and pain of the stomach, not increased by pressure, vomiting, in some with violent spasmodic effort, constriction and burning sensation at the upper part of the æsophagus, twisting of the tongue, in some instances protrusion of it, and cramps of the legs and arms. The sensorium was little affected, the pupils natural—pulse small and weak, and in none exceeding 65; in some it was imperceptible at the wrist, the fingers shrunk and shrivelled as in cholera, and the skin covered with partial clammy sweats. The urine was in almost every instance suppressed; and in scarcely any up to this period had the bowels been acted on. The vomiting consisted of thin watery fluid, tinged green, and in two or three was bloody; no odour of spirit was perceptible in what was ejected, but as it appeared that they had vomited copiously before, its absence may be accounted for. Emetics were given to those in whom there was reason to suppose, that any remains of the poison existed, and subsequently as well as to those who appeared more exhausted and sinking, liquid ammonia—to the slighter cases the common effervescing draught was given freely and with relief. In two cases in which vomiting was not known to have taken place freely, I had recourse to the stomach pump; in the first the introduction of the tube, which was resisted firmly by the constriction of the æsophagus, induced free vomiting, and in the second the stomach was found empty, vomiting, to a small extent, had taken place just before,

and the patient on the withdrawal of the tube, said he had been vomiting copiously the whole night. Evacuations from the bowels, when they did begin to take place, were of a thin greenish watery fluid, and were promoted by castor oil. Under this treatment all who were brought in alive recovered, nor were there in any of them those symptoms of inflammation of the stomach, which I at first apprehended would ensue. In a few in whom symptoms of irritation continued in the evening, a dose of calomel and opium, with castor oil repeated on the following morning, removed all unpleasant effects, and in the course of the day succeeding that of their admission, the whole were discharged well.

Having administered to the urgent symptoms of the living, I proceeded to examine the bodies of the dead ; these consisted of 18 men, and a goat which had eaten of the residue of the steeping pot. There was little or no distortion of the features generally, and no swelling of the body ; in two or three the lips were very livid. In none of the stomachs was there any odour of spirit remaining, and the contents generally appeared to be the secretions of that viscus itself, tinged with bile, and in a few, a small quantity of blood: in two or three were some trifling remains of the preceding day's meal, in one some dhye, and in another some ghee ; these two last appear to have been taken medicinally. The interior coats of the stomachs presented different appearances from a perfectly natural state to a moderate degree of inflammation, but in none had this arisen to a highly marked degree, nor did any of the bodies present appearances, from which I would have ventured an opinion of the cause of death, had I been unaware of the attending circumstances. In one case I examined the æsophagus, trachea, contents of the chest, and the intestines, and in another the brain, and found all healthy. Although satisfied from the symptoms, that the poison was of vegetable origin, I deemed it proper to apply the tests for arsenic and copper to the matters ejected by some of the patients and to the contents of some of the stomachs, but without any indications of either. The stomach of the goat was much distended with the refuse of the steeping pot, consisting of the flowers of the Mowah, intermixed with leaves and some grain, but I could not detect in it any substance to which I could attribute a deleterious character.

From the above sketch it will be evident that there was considerable difficulty in determining what the poison was; the symptoms indicated it to be of vegetable origin and of the irritating class. The root "Singhera" was the only article of this description I was acquainted with, and my knowledge of this was very limited, being confined to a single case, in which it had been resorted to for the purpose of suicide, and the symptoms so exactly corresponded to those now before me, that my suspicions attached themselves to it, and I expressed myself to the Magistrate accordingly. In the afternoon, I accompanied him to the liquor shop, which had been under the guard of the Police, from the first discovery of the mischief in the morning, where we instituted a strict scrutiny, to understand which it is necessary to describe the place and the mode of preparing the liquor.

A number of large earthen jars are sunk in the ground to be used as steeping pots, and in each of these, a quantity of the Mowah flowers, and Goor, or Molasses, are mixed with about 20 quarts of water, and allowed to stand for seven or eight days, until it is so far fermented, that the froth rises above the top of the pot ; it is then removed to the distilling pot which is also an earthen jar of similar size, built into a furnace and placed obliquely ; to its mouth is luted another jar as a condenser, and from it the liquor distilled is conveyed by a hollow bamboo into vessels appropriated for it. From the 20 quarts about 16 are thus obtained, and the liquor in this state is called Phool ; it is not ordinarily sold or drank in this state, but mixed with 2-3rds or more of water, which is done at other large jars sunk near the entrance of the spirit shop ; the usual price of it thus diluted is two pice per seer, and the quantity drank by each individual is calculated by pice, as such a one is a drinker of 2 pice or 3, as the case may be. Different articles are said to be mixed with the ingredients for the purpose of rendering the liquor stronger, and I have since this unfortunate occurrence learned that both Singhera and Buch-nag (a root of a similar character) are used for this purpose, and it is said that half a chittack of Singhera will double the strength of the above quantity (16 quarts) and thus enable the vender to double his profits ; these additions are always made clandestinely, and the drinkers do not appear to be aware that such additions are made.

In our researches at the liquor shop, which comprized the steeping pots, still, and jars in which the liquor is diluted, and from whence it is given out to the purchasers, we were unable to detect any deleterious article, but the circumstances of the goat having eaten of the refuse of the steeping pot, determines that to have been the place in which the poison was mixed, but this having been thrown away

and mixed with the contents of other pots, we had no opportunity of pursuing a further enquiry with it. One of the servants of the liquor shop having quitted his place immediately after serving out the noxious liquor, and having absconded from his house, suspicion fell on him, and his house was searched, but nothing found in it to confirm the suspicion. A Buniya, however, was found who stated that he had sold a quantity of Singhera to this man, and the man himself being apprehended a day or two after, confessed that he had put Singhera in coarse powder into the steeping pot. What quantity was used I have not been able to ascertain, but there are strong suspicions of a more nefarious motive than that of increasing the strength of the liquor. As these suspicions do not belong to the medical history of the case, and will shortly undergo judicial investigation, it is unnecessary to advert to them here.

We are lamentably ignorant of the nature of these and other vegetable poisons in use amongst the natives of Hindoostan. Hunter mentions them merely as "a kind of poison and a vegetable poison"; Ainslie does not mention them at all; and in Gladwin's Ulfaz Udesiyah (1239) the "umgerga-zehse" is given as the Hindee synonyme of "Keroon-us-simbel," "a poisonous plant, the filaments of which are sometimes found amongst Indian Spikenard." Richardson calls Spikenard "Sumbul Hindee." None of these give any information of the plants from which these roots are obtained, and all I can learn here is that the roots both of Singhera and Buch-nag are brought in considerable quantities from Nipal, and sold by the Punsarees or native druggists in the bazar at about eight annas a seer; they are used powdered and mixed with oil as an external application in cases of gout and rheumatism. I send a specimen of each of the roots, and in evidence of the activity of Singhera I may add that a friend who was with me when the specimens were brought, bit off a small portion, certainly, not two grains and was shortly after attacked with burning of the throat, and subsequently of the stomach, with profuse flow of saliva which annoyed him for two days.

R. N. BURNARD.

Benaras, April 5th, 1834.

FULLER'S CASE OF HEMORRHAGE FROM THE GUMS.

May 13.—An European child, of fair complexion, 6 months old, had been attended by me, for fever, several days. I had proposed lancing the gums in the beginning—but the parents being unwilling to allow it, I deferred it. The child not going on satisfactorily, I again urged the propriety of lancing the gums. They were lanced in the usual way—and bled freely at the time—the child then fell asleep. Two hours afterwards, half-past 5 P. M., I was sent for, as the gums had continued to bleed, whilst the child slept. I found the little fellow very pale and exhausted—his ears were become perfectly white and transparent—the scalp, before red and hot, now cool and pale. I applied Spirits of Turpentine—by means of lint, to the gums—and gave the child Tr. Opii. 10 or 12 *drops*, (not minims) and the same quantity of Turpentine—the child had vomited about an oz. of blood; besides what ran out of his mouth.

8 P. M.—Child asleep and no more bleeding.

May 14, 7 A. M.—Child slept till 4 o'clock this morning—no more hemorrhage.

7 P. M.—No bleeding—passed several stools containing clots of blood.

May 15.—A slight hemorrhage about nine A. M., in consequence of the nurse allowing the child to put a wooden toy into its mouth—this stopped of itself.

May 16.—Sent for very early this morning, as the bleeding had returned with violence, this was caused by the edges of a silver tea-spoon, in giving the child some castor oil. The bleeding stopped of itself—but not before the child had lost a great deal of blood—gave it a few drops of Laudanum.

1 P. M.—Bleeding had returned with increased violence—but had partly stopped when I arrived. I waited 2 hours—at the end of which time, it broke out afresh. I remarked that the child constantly sucked the gums. All the usual styptics having proved useless—and the difficulty of properly applying them, in so young a child, rendering them still likely to continue so. I applied the actual cautery to the spot in the upper gum, from which alone the blood issued—the bleeding stopped instantly and never returned. During the operation, the restlessness of the poor child, together with the force necessary to keep the mouth open, made the lower gum bleed—for the first time since the day on which they were lanced this stopped at the time, spontaneously—child much reduced.

May 17.—The father of the child wrote to say that I need not call till the evening as the bleeding had not returned, but at ½ past 2 P. M. I was sent for in a great hurry—the lower gum having burst out bleeding very profusely. I applied the hot iron—child very restless, and, in consequence, the application was not perfect—and blood continuing to ooze;—I repeated the application

two hours afterwards, and the result was complete success—the child threw up about half an ounce of blood, and passed blood in some of its stools afterwards. A few days after the last application of the hot iron, a lower tooth made its appearance in the very spot from which the bleeding came. No fever, of any consequence, remained after the day the gums were lanced on. I do not think that the bleeding would have returned, had it not been provoked, in the first instance, by the accidental circumstance above mentioned, as 40 hours had elapsed since the first bleeding had been stopped. The child is of a scrofulous habit, and had been taking a small quantity of Calomel for his fever—perhaps, these may, in some measure account, coupled with the unhealthy tendency of blood to the brain, for this unusual bleeding from the simple division of the gums.

C. W. Fuller, *Assist. Surgeon.*

Beerboom, 7th June, 1834.

SKETCHES OF THE EDINBURGH MEDICAL PROFESSORS.—No. II.

Dr. Hope.

The reader must accompany me from the filthy charnel house of Surgeons Square, the scene of my last sketch, to the most elegant and spacious Theatre in the University. Nor are we in the present instance confined to the Medical Sciences. Chemistry though linked with them, ranges over the wide field of universal nature, discovering the integral properties of all bodies, animate and inanimate. Of this, one of the most universal and the most delightful of all the sciences, Dr. Hope is the Professor—and though neither very profound in his knowledge, nor very original in his discoveries, he is an able and indefatigable teacher of first principles, illustrating the the same by a splendid series of experiments.

Dr. Hope is an aristocrat in every sense of the word. The blood not of all the Howards, but of all the Hopes flows in his veins, and enjoying as he has for many years the fruits of monopoly, he is a zealous stickler for University privileges. It were well however, that patronage was always so discriminating as when it gave the chemical chair to Dr. Hope, for independent of great zeal and industry in his calling, he is decidedly to be considered as an ornament to the University, and I will venture to say, that the Professorship of chemistry is in no seminary in Europe, more respectably filled. The experiments, as already observed, are most ably conducted. The Doctor is indeed a great manipulator, any thing but a bull in a China shop, a very enchanter waving his wand over effervescences, explosions and precipitations.

Dr. Hope is a portly, robust gentleman, peculiarly neat and clean in his person—and very well satisfied with himself. He walks to his chair with a pompous strut—should applause greet him in his course, he will stop with a dignity that might have become Cæsar in the senate house. He opens his note-book, gives a magnificent look round his audience—and should the benches be well filled on the 1st Lecture day—he will tinge that look with one shade of complacency, and begin his lecture in a strain of delivery—monotonous with all its pomp, and somewhat tiring in despite of its real value and interest.

It is the experimental part of this beautiful science that takes away from the dryness and minuteness of its detail, as the Professor handles it. He never fails in an experiment, and they are all done on a large scale, so as they may be seen from every part of the class room; a beautiful, capacious, and well-lighted apartment. No one who ever entered the Chemical class room—on days when there were interesting experiments to exhibit, could depart otherwise than delighted. When the lectures were on the gases, on electricity, and on galvanism, there were regular field days—to which all the idlers about town, likely to gain admission, flocked in crowds. Dr. Hope's language was pompous and ambitious of ornament where it ought to have been simple and natural. In lecturing on that part of his subject, which embraced a view of the structure of the solid parts of the earth, in his flights to be eloquent, his wing dipped sadly.

In the winter of 1825-26, a great novelty in the history of Science and Universities took place in Edinburgh, and Dr. Hope has the credit of being the first to open the doors of Alma Mater, to the fairest of God's creatures. He gave a course of popular lectures on Chemistry, to which rank and fashion, and beauty, eagerly rushed. It will be readily credited that the Doctor lost not a jot of his dignity on this occasion. He was as formal and as stiff as ever, and his toilet was even more carefully arranged, and in room of the old yellow-gloves, used on common occasions to preserve his hands, a pair of white kids now adorned the plump and dexterous organs. I shall never forget the Doctor's debut or the gay appearance of the Theatre. Where I had seen some hours before a crowd of ravenous, pallid, shabby-looking students, there was now a galaxy of the

rank, fashion and loveliness of the Modern Athens. There were many Venuses and but one Vulcan.

It would not have been in accordance with the Doctor's reputed taste and gallantry, had he on this occasion been mystical or profound. He knew as well as the most practised of his fair hearers how to display his charms and to cloak his defects. His object was to charm and to astonish, and he succeeded. "Hope told a flattering tale." Many a bright eye beamed with delight at seeing sulphur and phosphorus burn in oxygen gas. A boat glides, smoothly across a large tub of water, apparently at the Doctor's verbal fiat, the magnetic agent lying concealed. Then a tumbler, filled with phosphorated hydrogen gas, is apparently empty. Turn it upside down, its contents brought into contact with the atmosphere, instantly burn brilliantly. Thus is magical astonishment expressed on every beaming countenance. Thus did the Doctor insidiously captivate the senses, the outworks to the citadel of reason, at his first lecture, and at future ones cunningly and amusingly did he lead his pupils on to a smattering of knowledge in the principles of Chemistry. He himself became the Lion of Edinburgh for many months—

"And still they gazed, and still the wonder grew,
"That one small head could carry all he knew."

And each fair girl fancied herself a philosopher, when she knew that the air with which she breathed love sighs, was a compound of oxygen and azote, that the water she laved o'er her blooming cheek, vulgarly called an element, was not so—but a compound of two gases, which, when mixed, can be formed into water by passing an electric spark through them. The old ladies too must have their share of the "light from heaven." What was a common coal fire in the kitchen, must be explained by the beautiful theory of combustion, heat is caloric, and smoke is impure carbonic acid. Boiling the tea kettle, is raising water to the temperature of 212°, when it takes the form of vapour; and boiling an egg is coagulating its albumen.—On the plea of escorting fair friends I often was present at these lectures. I remember on one of these occasions that a very fine gilt lady —made to dance by electricity, did unfortunately make a sommerset and danced on her head,—

"But here my muse—her wing maun cour,
"Sic flights are far beyond her power—
"To sing ye how—she leep and flung—
"A souple jade she was and strong."—

The sense of decorum in the audience was greatly outraged by this untoward event —and the Doctor blushed for the mistake but nothing happened for

"To fifty chosen sylphs of special note
Was trust'd the important charge the petticoat"—

I must turn briefly to graver parts of Dr. Hope's character, or this will not be a sketch of a Medical Professor. I well recollect the day, when I held converse with him on subjects deep, professional and profound—in dog latin, like enough to rouse Longinus, Horace or Quintilian, from their quiet graves. It was in fact as all such examinations must be—an attempt in question and answer to reach each other's meaning, the examiner unable to probe the examined to the depth of his acquirements. Dr. Hope was but like myself a theoretical physician. He had not studied at the bed side, and he could not therefore put my knowledge, strictly Medical, much to the trial; but when he came to Chemistry, it behoved me to keep all my faculties on the stretch—and I must do him the justice to say that unlike some of the examiners, he formed his opinion of one's acquirement more from the general answers given, than from one particular one.—To the summing up he made of my examination, may he, perhaps, be indebted for some leaning towards him there may be in this sketch.—Let it so remain? I will not dwell on great blots in his character, his being a batchelor and a philanderer—a hoarder up of money—as well as of the holy domestic affections.

SCOTUS.

HOSPITAL REPORTS.

SUMMARY OF MR. RALEIGH, FOR JUNE 1834.

The setting in of the rainy season, at the commencement of June, occasioned a decided modification of atmospheric temperature, the thermometer, which, during the month of May, stood as high as 96°—in some of the coolest houses in Calcutta, at the hottest part of the day; now averaged from 80 to 84°, and the mornings and evenings before almost suffocating, became cool and refreshing.

This grateful change was attended by a favorable alteration in the character of prevailing diseases. CHOLERA was completely checked, and FEVERS ceased to assume the malignant, or typhoid type, which was so frequently observed through the preceding month; indeed the wards of the Presidency

General Hospital, were principally occupied by convalescents; an unusually small number of fresh cases being received, and those of comparatively mild and uninteresting nature. The FEVERS, either simple, inflammatory, or intermittent, yielded to a lenient course of treatment, the former seldom requiring very active depletion, and frequently being subdued merely by purgatives and antimonials. A few cases of diarrhœa, and the usual number of venereal affections, trifling disorders, and accidents, constituted the majority of admissions.

OPERATION FOR THE FORMATION OF NEW EYE-LIDS.

On the 7th of April, 1830, in the harbour of Bombay, Mr. Van—— D——m, æt. 25 years, a very intelligent man, first officer of a coasting ship, whilst daringly assisting in throwing overboard a large pot of boiling pitch, which had taken fire on the vessel's deck, had the contents upset immediately over his head, his whole body was consequently enveloped in the boiling and blazing liquid. In this deplorable condition he leaped into the sea, from which he was rescued by a boat's crew, and was immediately conveyed to the Bombay hospital, where he remained upwards of a year. Subsequently to leaving Bombay, he had consulted several practitioners, regarding his eyes, and had by each been dissuaded from submitting to any attempt to relieve his distressing situation, by an operation, as *useless*, and only subjecting himself to pain without the slightest prospect of benefit.

At the end of December, 1833, he applied to me, and expressed earnest desire that I should make some endeavour to improve his truly pitiable state. After a careful examination of the eye, and adjacent parts, I fully explained to him that the only means which appeared to me to hold out a chance of relief, was a painful and tedious series of operations, the result of which was doubtful; but that if he could make up his mind to submit under such unencouraging circumstances, I would undertake his case. The poor fellow did not hesitate to avail himself of my services, for as he very justly remarked, in case of the total failure of the operation, his condition could not be more miserable than it then was, and that *the prospect* of obtaining such amelioration of his malady, as would admit of his exposing his eye to light, and enjoying the blessing of sight, would resign him to any suffering he should have to undergo. And certainly no man ever bore excruciating pain with greater fortitude and patience than my patient did. He has been amply rewarded for all he has endured, and I, for the trouble I took with his case, by the high sense of satisfaction and gratitude, he has evinced, for the benefit rendered him.

The following is a tolerably accurate description of his state at the time he presented himself to me. The body and extremities very generally covered by extensive scars—the natural texture of the integuments of the face nearly completely destroyed, and the features distorted by contraction of cicatrices;—the ears both burnt off, and the *eyes*, with which we have more immediately to do at present, in the deplorable condition, which I will now more particularly describe.

THE LEFT EYE.—The palpebræ of this eye were everted, the globe destroyed, and in a staphylonatous state, occasioning much irritation and copious stillicidium.

THE RIGHT EYE.—The palpebræ of the right eye were so completely retracted, that the globe was perfectly uncovered by eye-lid, from the thickened cuticular state of the conjunctiva at its ciliary margins, no line of distinction could be discovered between it, and the skin of the forehead and cheek, excepting a row of coarse hair, half an inch long, (the ciliæ) which grew above the orbitar ridge of the frontal bone, just beneath a thick irregular cluster of short hair which marked the eye-brow—below, a corresponding row of long coarse hair extended in the direction of the lower edge of the superior malar bone. At the inner and outer canthi, the ends of the tarsus of the upper lid projected; the conjunctiva covering the surface of the lid was much thickened, red, and velvetty, the functions of the puncta and lacrymal passages were necessarily suspended, and the secretions flowed over the cheek in great abundance; so completely were the integuments of this portion of the face on the stretch, that he had no power of contracting them *immediately round the orbit*—a circumstance which occasioned him the most acute suffering at night, for, when endeavouring to compose himself to sleep, a spasmodic action of the muscular fibres surrounding the eye was induced, as an involuntary endeavour to close the eye, and it was not till approaching morning, when wearied by pain, that he obtained relief; but he retained the capability of corrugating the forehead. The vision of this (the right eye) *was good*, although there was a small leucomatous speck on the inferior margin of the cornea, and the pupil was somewhat irregular. But from the globe being perfectly unprotected by eye-lid, the admission of light was insupportable, occasioning agonizing pain and a copious flow of tears, he was consequently necessitated to keep the eye *constantly covered*, which rendered his situation more intolerable, than if he had

been entirely deprived of the power of sight.

As the structure and functions of the *left* globe were destroyed, the only advantage to be derived from an operation on this organ, was the removal of a constant source of irritation and pain, this was accordingly accomplished by excising the protruding portion of the globe, &c. &c.

For the RIGHT EYE—the object was the *formation* of eye-lids, sufficient to screen the eye from exposure to the undue influence of light, and to obtain this end the patient was subjected to the course of operations which I am about to describe. It must be borne in mind, that the integuments in the neighbourhood of the eye were so completely changed in texture, and so much, and irregularly retracted by cicatrization of the burnt parts, that they were neither in a suitable condition, or were they available, for filling up the exposed space on the face, occasioned by dissecting the skin from the upper part of the cheek, and carrying it up for the purpose of covering the eye. Which will account for my resorting to so distant a part for the supply of the required quantity of skin; in completely detaching which, from its original connexions, and consequently depriving it of its direct and natural circulation, I had no well authenticated precedent in the human subject, although I once saw a man whose nose was *said* to have been bitten off by a monkey, and being replaced united—and could we give credence to the account of "Butler," the famed projection of artificial noses "*Talliacotius*" must have either pursued the same method, or have subjected his patients to a very degrading and uncomfortable position; for he says—

> "So learned Talliacotius, from
> The brawny part of porter's bum
> Cut supplemental noses, which
> Would last as long as parent breech;
> But when the date of Nock was out,
> Off dropped the sympathetic snout."

In the case of my patient, the "supplemental" eye-lid was not so accommodating, and I believe the Poet was inaccurate in the description of the operation performed by Talliacotius, for the Professor of Bologna's practice, was only partially to raise (not detach,) a portion of the skin of the fore-arm, which he adapted to the pared root of the nose, and fixed the arm up to the face until the flap had united to the pared edges of the proboscis, when he separated the piece of integument, from its junction, with the parent member.

Mr. Van—— D—— having been admitted a patient of the General Hospital. On the 13th of February, 1833, I performed the first operation, the steps of which were as follow:

I made an incision along the ciliary margin, from the inner to the outer canthus, avoiding wounding the punctum; and dissecting the conjunctiva from the lower lid, I cut it off close to the globe of the eye. As soon as the hemorrhage had ceased, I commenced an incision at the bridge of the nose, about half an inch below the inner angle of the orbit, and carried it in a semicircular direction, with its convexity downwards, along the inferior edge of the malar portion of the superior maxillary bone, to about an inch and half posterior to the outer angle of the orbit—or just opposite the junction of the zygomatic processes of the malar and temporal bones. I now completely separated by dissection—the skin of the cheek *above* the incision, from its cellular connexions beneath, and raised it with the tarsus, the shape of which I adjusted with my fingers, so as to cover the inferior two thirds of the globe of the eye. The space thus laid bare was three inches in length, and one inch and half wide; and to fill up this, I removed a portion of fine integument, covered only by downy hair, from the upper arm, just posterior to the insertion of the deltoid muscle. To allow for contraction of the excised portion of skin, it was necessary that it should be cut larger than the space to which it was to be adapted appeared, I was therefore guided entirely by the eye, without reference to measurement, which would have only led to error, and was fortunate enough, to remove a portion, which corresponded with the greatest nicety to the denuded surface. In order to retain the introduced portion in exact opposition, I passed at distances of about one-fourth of an inch, fine needles, through the edges of the skin of the face, and of the piece of integument, and twisting a little silk round the ends, cut off the superfluous extremities—the further dressing consisted of a light fold of lint, with adhesive plaster, so applied, as *gently* to press the parts together.

February 14th.—The inserted piece of integument feels warm, has a natural appearance, and retains its situation exactly, the cheek is somewhat swollen.

15th.—The piece of skin has a bluish hue, but feels as warm as the adjacent parts of the face.

16th.—The parts look much as they did yesterday—no discharge issues from beneath the piece of skin.

17th.—There is a trifling oozing of pus, apparently from under the piece of integument, but not easily distinguished from that of the conjunctiva—the piece of skin is of a reddish blue colour, feels quite warm, and retains its situation; the patient

fancies he can feel when it is pricked with a needle—the integuments of the cheek at the edges of the wound have an irritable appearance.

18th.—The piece of skin looks darker, and is shrinking, some of the needles are making their way through the margins of the integument, and a considerable quantity of discharge issues from underneath it.

19th and 20th.—No material change since the 18th.

21st.—The cuticle of the piece of inserted integument, separated from the true skin, the latter has a pale sodden appearance, and copious discharge proceeds from beneath it.

22d.—The piece of skin which had been introduced, with the remaining needles fixed in it, came away this morning, with the dressings, in a very thin layer, as if all the softer parts had been absorbed, or dissolved, the cutis merely remaining, and the parts involved in the operation, presented the following appearance. The divided edges of the conjunctiva had approximated, and the raised skin of the cheek had formed adhesions to the parts beneath, so as to keep the lower eyelid in a position which covered half the globe of the eye, the lid was œdematous, but the conjunctiva only moderately inflamed. Below the lid, the bared space; one inch and quarter wide, and three inches in length, presented a healthy granulating surface, the edges rather disposed to cicatrize.

The attempt to engraft a piece of foreign integument having proved unsuccessful, it became necessary to substitute some other course of proceeding calculated to lead to the attainment of the desired object, and that which suggested itself as most likely to further the design, was that of preventing the healing, and contraction of the denuded space *on the cheek*, until the raised portion of skin now forming a lower eye-lid, had adhered to the parts below, and the divided conjunctiva had completely cicatrized. The condition of the skin of the face was favorable to this practice, as it, together with the cellular structure, was condensed, as the effect of the original accident, and consequently not so much disposed to contract in the course of healing. With this intention, the edges of the wound being destroyed by caustic, a thick pledget of lint formed by compressing several layers together, cut to the exact shape of the wound, and having hard unyielding edges, was so placed, as to keep the margins of the integument asunder; and firmly pressed down by adhœsive straps passed round the face and head; whilst the new lid was kept as nearly as possible in a natural position. From time to time, granulations sprouting from the conjunctiva were removed by the scissors, and the edges of the wound on the cheek, touched with caustic. By the middle of April the lid appeared to have established firm connexion with the parts underneath, and now the space on the cheek was allowed to heal.

On the 1st of June, the following report was made on the case:—

"The result of this operation has been tolerably successful, the integument below the eye has been so much raised as partially to cover the inferior part of the globe of the eye, the row of coarse eye lashes are very naturally placed along the margin of the lid, and the man experiences much relief, even from the trifling protection which the eye derives; the lid is still everted, and the ciliary margin stands out from the eye, the conjunctiva has a tolerably natural appearance, excepting in the line of the cicatrix—the cheek presents a broad elevated scar."

From the degree of success which attended the principle pursued in the preceding operation, I decided on following a similar course of practice in the subsequent ones.

The second operation performed on the 23d of June, was for the construction of an *upper eye lid*. The conjunctiva being divided along the inner edge of the coarse row of hair, (the cilia) was dissected from the tarsus, and cut off close to the globe of the eye. An incision was next commenced about an inch above the center of the root of the nose, and conducted over the forehead an inch above the orbitar edge of the frontal bone, across the temple, to about half an inch below, and one and half inch posterior to the external angle of the orbit; the integument was now dissected from the brow, to the edge of the tarsus, which was freed from any contracting bands, moulded to its natural shape, and brought with the loose skin, to cover the whole globe, and rather overlap the under palpebra.

The parts were now dressed with a thick pledget of lint, adhesive straps, &c. and the same precautions taken to prevent the healing of the exposed surface on the forehead, which was of considerable extent, at least an inch and a half wide, and three and half inches in length. By the beginning of September, or after two and half months, the skin which had been brought down from the brow, and which at this time covered the whole globe, appeared to have formed firm adhesions to the adjacent parts. The wound on the forehead was now permitted to heal *gradually;* in process of which, it occasioned such a degree of retraction of the integuments, as to raise the palpebra *exactly* to a natural height. Occasionally there was a disposition to eversion of the

lid, but this was counteracted by excising portions of the new formed conjunctiva whenever such appeared to be taking place; exuberant granulations from the conjunctiva frequently required removal, and various modifications in the method of dressing the parts in the course of cure were called for, which do not require to be detailed.

By the 1st of October, the parts involved in the operation, had accommodated themselves to their future position; the patient had perfect command of the motions of the upper lid, which he moved over the ball in the natural manner, for the purpose of lubricating its surface, it was sufficiently long to admit of the eye being completely closed, and during sleep covered the globe, and met the everted edge of the lower palpebra. The result of this operation, therefore, was more satisfactory than I had anticipated, the grand object of constructing an upper eye-lid, which would screen the eye from the ill effect of external stimuli, was *fully* and *perfectly* accomplished; the patient, free'd from the agony he suffered at night, now, for the first time, during three years, enjoyed tranquil repose.

The covering of the eye was removed, and the organ allowed to accustom itself by gentle degrees to exposure to light; by the end of the month all irritation had subsided, and the patient could now, not only exercise his sight in the strongest light, but in the examination of minute objects, without uneasiness or inconvenience.

The third operation performed on the 5th of November, was for the further elevation of the inferior palpebra, the steps of which were similar to the two preceding, namely—an incision was made across the cheek, just above the former one, from the dorsum of the nose to the side of the face, the integument dissected up to the tarsus, and the under lid raised, so as to cover one half of the globe of the eye, the method of dressing the parts during the course of healing, was also the same as in the two former instances. By the tenth of January, the process was completed; and the effect of this second operation on the under lid, was to raise it higher, and render it more moveable, than it was after the first attempt, and consequently to improve its condition, and afford increased protection to the inferior part of the ball of the eye; but it did not altogether remedy the eversion of the lid.

Mr. Van D——m left the Hospital on the 5th of February, 1834, to *resume his former avocations*, at which period he enjoyed *perfect vision*, and capability of employing his eye, not only in the exercise of ordinary duties, but in the use of optical instruments, such as are had recourse to for taking observations, in determining the position of a ship at sea, &c.

CASE *of Chronic Inflammation of the Mucous Membrane of the Larynx and Bronchial Tubes.*

In No. 7, Vol. I., of the "*India Journal of Medical Science*," under the head of selections, is an extract from Hüfeland's Bibliothek der Practischer Heilkunde, recommending the internal administration of Iodine in cases of severe salivation. The following case, in which the *inhalation* of that medicine *occasioned profuse ptyalism*, may at this juncture be considered worthy of notice.

Case.—Robt. B---t. æt. 40, a sailor of large frame, but much emaciated, was attacked six months ago, whilst at sea, exposed to cold, and wet, with pain of the chest, and cough, accompanied by copious expectoration; two months since, his voice became weak, and he experienced pain and soreness about the larynx. At the time of admission into Hospital 27th February last, his chest symptoms continued unmitigated, the cough was very urgent, particularly at night, the expectorated matter muco-purulent, and in large quantity, he complained of sense of weight, and soreness of the chest, and throat, difficulty of swallowing, and he could speak only in a whisper.

Counter irritation over the chest, by emetic tartar plaster, Antimonial solution and an opiate at bed time, with occasional purgatives; were at first prescribed—on the 18th of March, the patient's complaint continuing unabated, he was directed to inhale the steam from a solution of Iodine, (Dr. Scudamore's recipe) three times in a day; active counter irritation was maintained over a large surface of the chest, and medicines persisted in.

21st.—The expectoration observed to be thin and viscid; and he complained of soreness of the mouth.

22d.—A copious secretion of saliva.

Inhalation omitted.

R. Pil. Scillæ C. gr. iv.
Pulv. Ipecac. gr. i.
Opii. gr. $\frac{1}{4}$th, three times a day.
Haust. Anod. H. S, and gargle.

23d.—In a state of profuse ptyalism, the cheeks and lips swelled.

26th.—Salivation continues severe, the chest symptoms are decidedly relieved, the larynx being now the principal seat of uneasiness, occasioning frequent cough, but the expectoration is entirely mucous.

Blister over the throat.
Medicines continued.

30th.—The mouth continues sore, but the more severe state of salivation has subsided—the larynx is painful and tender on pressure, and the irritation at this part occasions frequent fits of coughing.

The steam from a solution of Hyosciamus, and Conium, was inhaled twice a day; the medicines continued, and the throat was repeatedly blistered, a fresh one being applied about every ten days.

April 20th.—The general health much improved and uneasiness of chest relieved, but the larynx still continues a source of irritation, and the voice remains faint.

Lunar caustic applied over the surface of the throat. Remedies continued.

30th.—On this day the lunar caustic blister was again made over the front of the neck.

May 10th.—The voice continues a mere whisper, the irritation at the larynx has diminished considerably.

Remedies continued.

Caustic again applied.

15th.—Dr. Garden in going round the Hospital this morning, mentioned to me, that he had read in some periodical of a similar case, in which the external local application of *Croton Oil*, was said to have brought about a restoration of voice.

Three drops of Croton Oil were consequently rubbed over the anterior part of the throat, daily—for about *twenty days*, without *any* perceptible effect.

June 7th.—Counter irritation was again excited by lunar caustic, an astringent gargle directed to be used frequently, so as to allow it to pass far down into the throat.

30th.—At this time the patient is in the enjoyment of good health; has become strong and robust; he is quite free from pain of the chest, or cough; but the voice continues impaired, and he can only speak in a hoarse whisper.

LACERATION OF THE LIVER.

Case.—J. W., a tall spare man, æt. about 30 years, gave the following account of himself when admitted into the General Hospital, at 5 o'clock on the afternoon of the 15th of October 1829.

On the previous evening he was propelled, with great violence from a buggy, at a time when the horse, which had taken fright, was running at full speed; he fell flat on his face and front part of the body, and as the road was smooth did not come in contact with any projecting or uneven substance, he had passed the night, and this day in great agony, and had had no evacuation from the bowels since the accident occurred.

On examination, the abdomen was observed to be generally distended, was excessively tender, and he suffered constant pain over the *whole* belly; the breathing was rapid and short, he complained of giddiness, frequently vomited, and was very restless and anxious; pulse frequent and hard.

Bled from the arm to ℥xiv., which occasioned faintness.

A purgative enema administered—and the abdomen fomented.

6 o'clock P. M.—Breathes more naturally, pulse slower and softer, feels faint, one scanty stool.

Calomel, ℈i.

10 o'clock P. M.—Pain and tenderness of the abdomen increased—very restless with a frequent small hard pulse—he rejected the Calomel given at 6 o'clock—no stool.

Thirty leeches over the belly.

Repeat Calomel, ℈i., & Purgative Enema.

October 16th.—Passed a very uneasy night—the belly is less painful and tender, but much distended—pulse small and quick—countenance anxious—tongue white and dry, had no evacuation from the bowels or bladder.

A catheter passed and ℥iv. of healthy urine drawn off.

A Purgative Injection, and an active purge of Calomel and Jalap administered; xij. leeches and fomentations to the belly.

12 o'clock, noon.—One brown fœcal stool; symptoms much the same as at the morning visit.

Purgative and Injection repd.

4 o'clock, P. M.—Passed three brown fœcal stools since noon—the abdomen equally painful, tender, and tense.

Rept. the Injection.

9 o'clock, P. M.—Had 3 natural stools, and passed a considerable quantity of urine, pulse small and frequent.

Rept. Pulv. Purg. and Injection.

12 o'clock night.—Two stools since 9 o'clock, belly somewhat less tender.

October 17th.—During the night he passed six stools, of thick brown fœcal matter—natural in appearance; and some urine—the pulse continues small and rapid, the belly equally tense, but much less painful, or tender; he is very low, restless, and anxious.

Mist. Camph. ℥iss.

Spt. Ammon. ℥ss. now and then—foment the belly.

Noon.—No material change.

6 o'clock. P. M.—During the evening, purging of brown fluid came on, the belly continuing distended to the utmost degree.

9 o'clock, P. M.—Purging continues very frequent, the stools pass off involuntarily—he is very low, and has a rapid feeble pulse

—he is quite free from pain, and the belly does not appear to be tender when pressed.

Tinct. Opii. ℥i.
Mist. Camph. ℥i. directly.

A little mulled port wine, occasionally.

10 o'clock, P. M.—The purging has been much checked, and he feels less faint.

12 o'clock, night.—Has not been purged since ten o'clock, feels better, but the pulse is very feeble and rapid, the extremities cool, countenance anxious, breathing short and frequent, he is quite free from pain, but rather restless.

Tinct. Opii.
Spt. Æther. Sulph. aa. ℥ss.
Mist. Camph. ℥i. directly.

A small quantity of arrow root and wine to be given at intervals.

Bottles of hot water to the feet, &c.

Oct. 18th.—Died at one o'clock, A. M.

Post Mortem Inspection eight hours after death.

The abdomen did not flatten down after death, but continued distended and elastic, and on laying it open, a large quantity of blood in a fluid state gushed out, and the intestines, inflated with air, protruded: the cavity of the abdomen was filled with uncoagulated blood; the convex surface of the liver was covered by a thick coagulum of black blood, which was found passing into the *substance* of the liver. On carefully removing this enormous clot, an irregular laceration of the right, or large lobe of the liver was exposed; extending in a perpendicular direction from its diaphragmatic, to the thin edge, completely through the viscus; and laterally, to the gall bladder, lobulus spigelii, and partially through the left lobe. The laceration anteriorly was sufficiently capacious to admit three fingers being passed into it, and formed an irregular *hole*, surrounding which the surface of the liver was denuded of its peritoneal covering, but towards the edges, the rupture formed a mere fissure, and at the thin margin, the apposed surfaces had become united by soft adhesive matter; the gall bladder, filled with healthy bile, was uninjured. The other viscera exhibited no marks of violence or disease.

It appears an extraordinary circumstance, that after the receipt of so extensive and irreparable an injury, of so large and important an organ in the animal economy, as the liver; this individual should have continued to exist for *sixty-six hours*.

WALTER RALEIGH, *General Hospital.*

ANALYSIS OF BOOKS.

TRANSACTIONS OF THE MEDICAL AND PHYSICAL SOCIETY OF CALCUTTA. VOLUME VII., PART 1.

Whether the Society have decided wisely, or the reverse, in departing from the mode hitherto observed of ushering their Transactions into the world is a point upon which we are not called to give any opinion. The change, it may be presumed, has originated either in a great accumulation of contributions, or a wish to bring them under the public notice with the least possible delay. How far the establishment of this Journal may have been instrumental, in producing a determination in the councils of the Medical and Physical Society to publish more frequently, we cannot say; but it is to be hoped, that in this case competition may produce its usual good effects upon both parties. For aught else, the matter is of no earthly importance to any save those who have 'to pay the piper.' As in every work of this kind, the volume contains contributions of various degrees of merit; and it is not improbable that as respects some of the writers, greater experience will produce a considerable modification of opinion. The papers are fourteen in number, the first upon the list being entitled:

Observations on the Congenital Goitre of Animals which occurs in Nipal, by A. Campbell, M. D.—Out of twenty-two congenital tumours in lambs and kids examined at Nipal, by Dr. Campbell, the structure of 17 was the same as described by Mr. Bramley in his account of Goitre in Nipal. Each on being punctured or cut into, exuded a glairy semi-gelatinous fluid. Goitre of the cellular description (for the glairy fluid is contained in small cells) are flaccid to the feel. The five remaining specimens presented a totally distinct structure from the former and may be classed as "Sarcomatous Goitre." Externally felt these have an even smooth surface, are easily moveable, and when cut into discharge blood copiously. A section of them shews somewhat of a glandular structure. The cellular variety of Goitre, is most commonly of a pyriform shape; the sarcomatous is of a laterally compressed oval or roundish form. Among the general conclusions on the subject to which Dr. Campbell comes, are—1, goats and sheep brought to Nipal from the Northern provinces of India where Goitre is not known, produce goitred young. 2, A goat or sheep, in perfect health, produces goitred offspring.

Fortunately congenital Goitre is not known in Nipal to occur among the human race.

Some account of a peculiar form of Fever which exists in Bengal, by H. H. Goodeve, M. D.—The very tedious form of intermittent fever adverted to exists in almost every part of lower Bengal. It attacks principally the lower classes, and those much exposed to hardship, without distinction of sex or age. It begins with langour, headache, &c. succeeded by a fit of shivering more or less severe. The hot stage is often very severe, with quick full pulse and headache, frequently accompanied by low delirium. This hot stage continues for about forty-eight hours, when it gradually abates, and the patient is soon as well as before the attack.

A peculiar local affection accompanies this disease forming one of its distinctive characters. This is an œdematous swelling usually of the feet and ancles, with pain and a burning sensation, and sometimes considerable inflammation, which commences with the first appearance of the fever, and subsides at the termination of the paroxysm at the early period of the disease; but after the malady has become thoroughly established in the patient's constitution, the swelling remains permanently fixed, the pain and inflammation only returning with each attack. Sometimes, instead of the legs, it prefers the hands and arms.

The first paroxysm being over, the patient remains free from another attack for fourteen days, at the expiration of which, the disease returns in the same form, and continues if unopposed by medical treatment, to repeat its visits twice in every month for many years; not unfrequently during the remainder of the patient's life, and that without materially injuring the vital powers. We should be inclined somewhat to doubt the accuracy of the last statement, which does not rest upon Dr. Goodeve's own testimony, but on that of hearsay—for every one who has had much experience of native patients, must be well aware with what extreme caution their averments respecting the nature, duration, and frequency of attack of any disease, must be taken.

The accessions of this fever Dr. Goodeve considers as evidently influenced by the changes of the moon. The native mode of treating the disease he deems so rational, that we may, with slight modification, take it as our guide. Blood-letting at the very commencement is directed. In almost all cases, the natives too, administer a mild purge, and sometimes an emetic. After the bowels are cleared out, they trust to starvation and tisans of tamarind water, which keep up a gentle action on the intestines, and generally produce at least one stool daily. In the intervals between the paroxysms, febrifuge medicines are given, and amongst others, their favorite arsenic is the most celebrated. If left to nature this disease sometimes wears itself out, after many years, but it more frequently remains the troublesome companion of the patient for life.

A case of Abscess of the Coats of the Bladder, by J. Davidson, Esq.—Subject, a stout aged Mussulman, who applied for relief on account of retention of urine which came on gradually—passed no urine for two days. He was in great pain from the distended bladder which was felt above the pubes, very large and hard—and there was an œdematous swelling of the penis and scrotum. A large quantity of very fœtid urine was drawn off by Mr. Davidson, with a straight pewter catheter, as he found some difficulty in introducing the common one. For several days he continued to pass his urine pretty copiously, but with gradually increasing pain and difficulty, which seemed attributable to a swelling just above the pubes, which, notwithstanding proper topical applications, continued to increase in size for ten days, when it was as large as a goose's egg. He complained of great agony; and although the swelling was still hard; Mr. D. thinking there was an obscure sense of fluctuation at the most depending part, made an incision two inches long and one and a half deep, which gave immediate relief; and was followed by the discharge of about eight ounces of fœtid pus and sloughs. In about an hour he was able to expel his urine by the urethra, but during the ensuing night, discovered that it was also discharged by the wound above the pubes. This discharge continued upwards of a month, but under proper treatment and generous diet the abscess put on a healthy appearance and the man was discharged well, in a month and twenty days from his admission.

On the Pathology of some of the diseases of the Abdominal Viscera, by C. Morehead, M. D.—This paper occupies forty goodly pages—it is evident, therefore, that we must considerably condense, in order, with reference to other calls upon our space, to give a general notion of the author's views. The paper opens with prefatory remarks upon the labours of other observers. If, says Mr. Morehead, the subcellular tissue of the bowels be thickened, the muscular coat cannot efficiently act in propelling the contents of the bowels.

The anatomical conditions of the mucous lining of the large intestines are two—the one when the bowel is moderately dilated; the other where it is contracted; the first a tolerably uniform surface, the other a rugous, irregular puckered one. Suppose a mucous lining, with a rugous surface, should become the seat of inflammation,

the action extending to the sub-cellular tissue, may cause thickening there, and fix the mucous lining in its rugous condition. Such a physiological rugous condition is very likely to be the state of the mucous lining of the large intestines in dysentery—one of the first effects of irritation of the mucous lining is to induce strong contraction of the muscular coat. This is the explanation of tenesmus.

One of the practical inferences come to by Dr. M. as well as we can understand, is that he does not appear entirely to approve of the system of Ipecacuanha and gentian treatment in acute Dysentery. It were desirable, we think, if Dr. Morehead's mode of stating a case in respect to an account of treatment had been fuller. Thus, in case I. there is almost a close printed page of symptoms and post mortem appearances; but the treatment is laconically summed up thus—"*Treatment*, V. S. blisters to the epigastrium; mercurials with opiates; mouth sore; no salivation."

In a case, we always like to see the details of treatment accompanying the detail of symptoms. It would also have been as well if the number of hours after death at which the examination took place had been mentioned. Case II. is still more open to the objection mentioned. A page and a half of symptoms is followed by two lines and a half under the head of *treatment!* The case itself establishes simply the fact of diseased large intestines existing in connexion with abscesses of the liver. Case VII. entitled *Dysentery*, is the only one where the treatment is given along with the symptomatology.

Cases of Chronic Dysentery, treated with sulphate of copper and opium, by W. W. Raleigh, Esq.—Mr. Raleigh's views on acute dysentery (see No. IV. of the *India Journal of Medical Science*,) are already, to a certain extent, known to our readers—the paper entitled above, affords us an idea of those he entertains on the chronic form of the disease. He justly observes, that "Chronic Dysentery" is a term made use of with little discrimination, in designating various grades of inflammation, which in practice require the nicest discretion. The symptoms of the disease and appearances after death, are such, as to enable us to pronounce without hesitation, that dysentery, at any stage, is inflammation of the mucous membrane lining the large intestines. In no instance of a large number carefully examined by our author, has he discovered the ulcerative process to be continued to the ileum. Although dysentery is sometimes co-existent with affections of the liver, or other viscera; such complicated states of disease cannot be classed under the head of simple dysentery. We may feel satisfied, therefore, that inflammation assumes as many different characters and gradations, in the mucous lining of the colon and rectum, as in a similar tissue elsewhere situated; gives rise to exactly similar results, and calls for an equally exact definition, and the same modifications of treatment. How truly absurd and unscientific then (continues Mr. R.) does it appear, to attach to any one medicine, the property of a specific, in a malady so varying in its forms, that whilst at one period rigid antiphlogistic measures are demanded for its relief, at another, the most opposite remedies are found to be essentially beneficial.

Our diagnosis in this disease is very imperfect. Mr. R. knows but of two indications which may be relied on as generally leading to a satisfactory conclusion; the appearance of the ejected matter per anum, and the seat and degree of severity of the abdominal pain and tenderness, each of which however is occasionally deceptive. We may usually find in our post mortem examinations, proof of inflammation having been the essential nature of the disease, or thickened pulpy mucous membrane of pink or purplish hue, with or without ulceration, varying in extent or appearance, effusion of lymph between the coats of the gut, enlargement and induration of the glands in the vicinity. In other (generally protracted) cases, the parietes of the intestine appearing to have participated in the general emaciation, the gut is very thin, its mucous membrane pale, velvetty, and as if it had been macerated in fluid for some time, with here and there traces of vascularity, ulceration, &c. &c. &c. It is in these particular stages of the disease, so differing in character from the more acute forms, that we derive advantage from astringents, and particularly from the sulphate of copper in combination with opium. Mr. Raleigh bears testimony to the truly magical effects of this combination in European and Native constitutions, often under the most unpromising circumstances. He does not however think it applicable to the more acute forms. Pain and tenderness of the abdomen, together with bloody mucous stools, contraindicate, the adoption of the practice.

Mr. Raleigh has found the medicine most beneficial where the evacuations were of a pultaceous consistence, fluid and of pale colour. In those instances where the tongue was of a mahogany or beet root hue, he invariably found it of great service. Under this treatment, a disposition to indolence of the intestines sometimes takes place, when it will be advisable to administer occasional mild laxatives. Warm clothing, and *par-*

ticularly a flannel petee (belly band) and stockings are indispensable in every stage of dysentery. The diet should be bland, with a judicious allowance of port wine or beer occasionally, but only under circumstances of extreme debility.

The Pendulous Tumour of the Ear common in Nipal, by M. J. Bramley, Esq.—The disease consists of one or more encysted tumours apparently rising from, or situated on any portion of the *pinna* of the external ear. A strange circumstance in its history is, its being found only amongst the inhabitants of a certain small village of Nipal, called Neel-khant. It is rarely if ever productive of constitutional disturbance. Its chief disadvantage is the extraordinary deformity it occasions. It is first notified by a small firm and elastic eminence on any part of the external ear which frequently in the course of a month or two enlarges to the size of a pigeon's egg. At this time it would appear to be nothing more than a common encysted tumour, containing a white curdy fluid. It is moveable with a broad base. Its size continues to increase, till at length the base loosens and detaches itself from the cellular tissue from which it emanated. The ear is then drawn downwards by the weight of the tumour which now becomes pendulous and ovate shaped. The size varies from a small orange, while in others it may reach the point of the shoulder.

As it is a disease which rarely produces any constitutional disturbance, but causes a deformity, for which the subjects of it care nothing; the greater the expedition in effecting its removal, the more readily, Mr. Bramley thinks, will the patients submit to be treated. In all cases, the artery which nourishes the disease, requires to be tied. The natives seem to believe, that the disease is attributable to some impurities in the water which they drink—on the whole its cause appears to be very obscure.

On the numerous cases of Apoplexy, which occurred during the hot season of 1833, *at Chunar, by A. K. Lindesay, Esq.*—This very interesting paper records the speedily fatal effects of high temperature, occasionally, on the European constitution, or of heat and intemperance in the use of spirituous liquors, conjoined. The hot season of 1833 commenced early, and continued long. Towards the end of May, (when 18 days of easterly wind had been succeeded by a scorching west wind,) before the Europeans became sensibly affected, sudden deaths were daily reported in considerable numbers. From all Mr. L. could learn, most of these last dropped down dead, some at their usual labour, some after exposure and excitement during the Mohurrum, and others in their houses, without any apparent illness, or any premonitory symptoms. At last it began to attack the Europeans, and in the course of the months of May and June, but chiefly from the end of May till towards the end of June, seventeen cases of apoplexy had proved fatal among little more than 200 men. The young, the old, the drunken, and the steady; those habitually exposing themselves, and the careful were indiscriminately attacked. In almost every case, the accession was sudden, and in only one case, was one side of the body more paralysed than the other.

Case.—Serjeant Schenk, Veteran Company, etat. 65; 37 years in India. An active old man, much in the sun, and given to occasional tippling. May 29. Admitted after evening visit, without any particular complaint, but hot and uncomfortable; had been drinking during the day. He was bled by the Apothecary to 12 oz. with relief, but shortly after was observed to be comatose. I saw him at 9½ P. M. found him comatose, convulsed, muscular twitches affecting both sides equally stertor, skin warm, pulse full.

Shaved head, applied cold, cupped temples, applied sinapisms to legs, injected purging enema, gave a draught with Sp. Ammon. Aromat. and Tinct. Rhei, and opened jugular vein;—however, the pulse soon became tremulous, and a few oz. were only drawn; a second enema was administered, no fœces followed. He died about midnight.

On inspection of the body—the dura mater was found strongly adhering to the scull;—arachnoid, thickened and white—under it a quantity of serum, which also abounded at the base of the cranium.

We can only afford room for one other case.

Case.—Sergeant Major Wells, æt: 50, 31 years in India, very active and robust, in the habit of drinking large quantities of spirits, which, however, seldom rendered him unfit for his numerous duties.

May 30.—Has lately been more intemperate than usual; some days ago had a fall, and he has supposed his health breaking for some months. Last night when half asleep, suddenly felt a severe pain of acciput, and was instantly aware that he had lost the use of his right arm; he would not report sick, but he was advised to shave the back of his head, apply leeches, and take laxatives.

June 2.—Palsy not better; in addition has the tremors, dreams, and fancies, characteristic of delirium tremens. Admitted into hospital, had head shaved, cold applied, caustic blisters behind ears, tepid affusion, calomel purges, opiate enemata, cupping inter scapulas, and weak brandy and water. Bowels acting very freely.

June 3.—Having no sleep; tremors, vomiting. Same treatment, with small dose of

ammonia and laudanum to allay vomiting; up to noon of this day, though generally raving, he could, by being loudly spoken to, be brought to understand what was going on, and to answer rationally.

June 4.—No improvement, face distorted, frothing at mouth, frequent convulsive shivering. Pulse intermitting, surface livid. Died about 8 A. M.

Inspection five hours after death. Much fluid dark blood escaped during preparatory dissection; line of longitudinal sinus strongly adhering, glands of Pacchioni *very* deeply indented in scull, veins gorged, and sinuses full; on turning back the dura mater, the arachnoid was found white, nearly opaque, and so very much distended by serum, as to appear like a well filled blister. In the prevailing disease, excess of serous affection is always present, but here it was in *immense* quantity; much serum in base of scull, and on looking down the foramen magnum to divide the medulla spinalis, the canal seemed *brim full;* the pia mater was generally more vascular than usnal, especially about the tuber annulare; there was a small deposit of gelatinous granules at root of right eighth pair of nerves; the substance of the brain throughout without a trace of disease; a slight excess of serum in ventricles and between the layers of septum lucidum.

On the Pathology of Dysentery, by J. Murray, Esq.—Conceiving that he has enjoyed superior advantages in observing the morbid appearances in earlier stages of this disease than could have fallen to the lot of many. Mr. Murray states that he has been induced to propose a new theory of it. Of Mr. Murray's *superior* advantages in regard to opportunities of observing morbid appearances in Dysentery, we shall say nothing. Such as he had, he has made creditable and diligent use of; but he has, we cannot help thinking, been a little premature in straining them to his conclusions. The nature of our publication forbids very minute entry into details. Suffice it then, that from observation on six fatal cases of Dysentery, Mr. M. deems that the disease passes through six distinct stages—1, Inflammation, or vascularity, and thickening of the coats of numerous portions of the colon—2, Effusion, or the formation of numerous vesicles, with subsidence of the inflammatory action—3, Gangrene, or inflammation of the coats surrounding the vesicles, or pustules leading to their death, to an extent proportioned to the severity of the inflammation—4, Ulcerative inflammation, or the absorption of the surrounding coats, with the separation of the sphacelated portion—5, Granulation, or the formation of a new healthy vascular secreting surfaces—6, Cicatrization, or the contraction of the surface of the ulcer and the formation of a new epithema.

The progress of the ulcers in this disease bears, according to Mr. Murray, a very close analogy to those of pustular diseases on the surface of the body, where the surface is kept moist, and the formation of crusts prevented. In a word our author infers that Dysentery is of the pustular order of exanthematous diseases. If this view be correct, it will be necessary to place the disease in a different class from the exanthemata, which, as we have ever understood the term, comprises *only* diseases producing a peculiar appearance on the *skin.* Mr. Murray also leans to the notion that Dysentery, like pustular diseases generally, is contagious for once only. For the sake of humanity we wish the disease also resembled small pox in affecting the patient only *once.*

Cases of Fracture of the lower Extremity, by W. W. Raleigh, Esq.—Mr. Raleigh, has the merit of being the first who introduced Mr. Amesbury's practice in fractures and the application of his admirable mechanical apparatus into India. The paper before us, is the second he has given in the way of report of cases of fractured lower extremity, in which his success has been highly gratifying. The following case is of high practical importance, and we feel the greater interest in the history of it, as we almost daily witnessed its progress while under our friend Mr. R.'s care.

Compound Fracture of the Tibia.

Mr. B. æt. about 30 years; a man of full habit, and accustomed to live freely. Was ten days previous to his admission into the General Hospital (on 28th June 1832), struck on the leg three inches below the knee, by a portion of the barrel of a pistol which had burst, causing a fracture, with extreme state of comminution, of about two inches of the tibia, and a large ragged wound communicating with, and laying bare, the broken ends of the bone. A very copious grumous fœtid discharge poured from the opening, in which numerous small spiculæ and powdered portions of bone were mixed. The integuments surrounding the wound were dark-colored and flabby, from accumulation of pus in the cellular structure beneath; he was labouring under considerable sympathetic febrile excitement, and had had no evacuation from the bowels for four days. The fibula remained entire. The limb, which had been previously put up with short splints, was now placed on Amesbury's apparatus, the wound loosely dressed with lint, cold lotion applied to other parts of the extremity, and the bowels acted on by a purgative daily: under this treatment, the constitutional symptoms quickly sub-

sided, the appearance of the wound improved, and the discharge from it, became by the 15th, "healthy pus;" by this time, several large pieces of bone had come away, the wound slowly diminished in size, but the discharge continued copious, occasionally changed to more unfavourable character, on the bowels being disordered, or other derangement of the system occurring; improving again, on the disappearance of these inconveniences. In January 1833, his general health began to fail; tonics were administered, and a more nutritive diet with beer allowed him; on which he again recovered good general health, but the wound continued to discharge, although the fracture had united firmly. On the 24th of March, it was nccessary to make a counter-opening three inches below the original wound, in consequence of an extension of suppuration on the inner and anterior part of the leg; from this opening several pieces of bone were, from time to time, extracted. On the 10th of May following, after between 40 and 50 portions of bone, varying from half an inch in length and quarter in breadth, to the size of a barley-corn, had been expelled, the wounds healed; but after a day or two, an opening again formed, from which yellow pus continued to issue. On the subsequent September, this man died of dyscntery, and I was fortunate enough to procure the tibia which had formerly been fractured.

In the preparation it will be remarked, that the external solid structure of the bone has strongly united at each angle, and in great part on the posterior surface, whilst a large hollow remains on the anterior face of the tibia, passing upwards through the cancellated structure, and opening posteriorly in two smaller holes, between which passes a strong bar of bone, uniting the upper and lower portions.

This case exhibits a fact of much practical importance in the surgery of compound fractures of the leg; namely, that in cases where there has been much destruction of bone, and injury of thc soft parts, bony union may be established between some parts of the ends of the bone, whilst at others, brcach of continuity remains, the sinuses do not take on a healing action, and consequently a copious discharge continues.—Now under such circumstances, with Mr. Amesbury's or other apparatus, which will command the positive motions of the limb, the patient may be allowed to leave his couch, and sit up, take a gentle exercise in a palankeen or whceled chair, with advantage to his general health and local disease, and without the slightest apprehension of danger; whilst the sickness of a protracted confinement will be considerably mitigated.

I have at this time under my charge a gentleman, whose situation much resembles that of the person whose case has been just related. Partial, firm, bony union is attained, but a copious discharge continues. He is allowed all the liberties I have mentioned as admissible, which he not unfrequently ventures to exceed, and without ill consequence.*

Observations on Goitre, by J. McClelland, Esq.—The author's conclusions are so clearly stated, and at the same time of such interest in a scientific point of view, that they speak for themselves.

I. In primitive districts, whcre limestone does not exist as a principal rock-formation, goître is not found, or if found, it is only in the proportion of one to five hundred of the population.

II. In transition and floetz districts, where limestone prevails, one-seventh of the whole population are affected with goître.

III. In districts II. the population are not equally affected in every village: but one village is affected in the midst of others which are healthy, and vice versâ.

IV. That goître does not depend on temperature, altitude, or aspect of irregularities on the surface of the earth, on hereditary taint, nor on the usual causes of glandular enlargements in other parts of the body.

V. That those villages, in which goître exists, are always erected on, or in close vicinity to, great limestone formations; and that the water is always furnished, for the use of the inhabitants of such villages, by springs which are derived from limestone rocks.

VI. No instance to the contrary of V. has occurred to the author; though his observations have been extended over the space of 1,000 square miles, nearly: and conducted by himsclf in person, without a view to the support of any particular theory, or to the formation of a new one.

VII. That the morbid principle in the water is removed, or modified, according to the distance it runs; in channels of alluvial earth, impregnated with animal or vegetable matter, before taken for use.

VIII. That goître affects both sexes indiscriminatcly: and children arc exempt from it, until the age of three years.

IX. In villages where goître prevails, it is not usual for the lower animals to be affected by it; and as no instance of the

* Since this paper was written, I have had the satisfaction of seeing this patient recover.

kind has occurred to his notice, the author concludes that the tumors observed by others on the necks of animals belong probably to a distinct disease.

X. The lowest caste of persons are here generally the slaves of the higher orders of Hindoos. They are more subject to the disease than their masters, who are less exposed to the noxious influence of the water.

The paper is illustrated by a valuable tabular views of the villages in Shore valley, showing the nature of the investigations. on which the above conclusions are founded. With respect to the treatment of this loathsome disorder, Mr. McClelland insists on the necessity of changing the accustomed water; and substituting for it the water of a spring known to be wholesome. This, he conceives, is better decided by the appearance of persons who have used it for a long time, or by the absence of limestone from the spring, than by any chemical analysis.

Observations on Elephantiasis, by T. A. Wise, M. D.—A long residence at Hoogly, Dr. Wise states, has afforded him many opportunities of examining this disease in its different stages, as there are few families in the district which have not one or more of its members affected with elephantiasis. An attack is usually preceded by a feeling of listlessness, languor, lowness of spirits, thirst, deranged bowels, and loss of appetite. This is followed by a sudden feeling of pain in the groin extending along the anterior and inside of the thigh, when the leg is the part affected. In other cases, the pain is confined to the foot and leg; which are hot, swelled, and sensible. This local irritation is quickly succeeded by a rigor, a hot, and a sweating stage—after which relief is felt. The febrile attack continues for two or three days. The first attack leaves generally no permanent swelling. After several paroxysms, a swelling is left, which is augmented by each attack. Sometimes the distended skin bursts or ulcerates in a severe attack, and a discharge of serous fluid takes place with great relief to the patient. The attacks of fever and inflammation may occur frequently, and the moon may be observed to have a remarkable influence in producing the paroxysm. Quere—may not some of the cases, adverted to, by Dr. Goodeve, have been some modification of Elephantiasis, especially such as had permanent swelling of the lower extremities? Dr. Goodeve, with that acute spirit of investigation which he possesses, we doubt not will soon be able to settle the point.

Dr. Wise, in his excellent paper, describes all the forms of the disease with great fidelity—but at a length which precludes our dwelling upon it so much as we could wish. Dr. Wise has not been able to obtain any evidence of Elephantiasis being either contagious or hereditary. He conceives that Elephantiasis is produced by an inflammation of veins, a position which we think requires further elucidation and confirmation. To us it appears much more probable to be mainly an affection of the cellular tissue.

With respect to treatment—when the disease is seen during the acute stage, an emetic should be given, followed by diaphoretics and purgatives combined with anodyne medicines. Scarifications made in the inflamed part will often be found of great use. The steam bath and fomentations will also be useful.

Between the attacks of fever, means should be employed to remove the swelling, and prevent a recurrence of the attack. In the plan of treatment followed by Dr. W. he always found great advantage in keeping up a sore over the diseased vessels of the limb (assuming the fact that they *are* diseased) to act as a counter-irritant, as well as to drain off the large quantity of secreted fluid. This may be accomplished by keeping open blisters, setons, or issues. While such discharges are going on, the absorption of the swelling is to be assisted by the horizontal position, by continued frictions, graduated pressure by means of adhesive plaster and rollers, &c.

Notes on a new Injection for the cure of Hydrocele, by J. R. Martin, Esq.—Hydrocele, Mr. Martin justly remarks, is a very common disease amongst the natives of lower Bengal. Mr. M. is induced to think that *his* mode of operating for the radical cure of this disease is an improvement upon Sir James Earle's. We have no hesitation in declaring that we think so too—for it certainly is simpler, and judging from Mr. M.'s representation much less liable to be followed by distressing symptoms, than the old port-wine injecting plan. Mr. Martin's plan is to inject two urethra syringe-fulls, of a solution of tincture of iodine, in the proportion of two drams to six of water, of the ordinary temperature, the canula being withdrawn, and the injection retained. The effects of the solution appear to be immediate, the inflammation arriving at its height in 24 hours. The advantages of the iodine injection Mr. Martin conceives to be—

1st. It is altogether free from the danger to life so frequently occasioned by the former operation of injection with wine solution.

2nd. The cure is effected in from three to five days, in place of from fifteen to twenty-five.

3rd. The operation is greatly simplified, so much so, that any person, at all acquainted with the anatomy of the parts, may operate; and the injection being so small in quantity, and what is more important, *retained*, infiltration is next to impossible.

It is a question perhaps whether iodine in the treatment of hydrocele, exerts a more beneficial action than the same quantity of any other stimulating ingredient—or whether a similarly beneficial result would follow in European practice—but this much is certain that Mr. Martin has decidedly deserved well of the profession by simplifying the operation, and rendering it much less liable to severe consequences than it was formerly understood to be; not that we have ever seen any pressing danger exhibited in the progress of a case of hydrocele however treated.

SELECTIONS.

FOREIGN BODIES IN THE AIR-PASSAGES.

The introduction of a foreign body into the air-passages, is always a very serious accident. If the patient be not assisted, he may, in fact, quickly perish. An operation does not always remedy the accident. Under more favourable circumstances, however, the foreign substance presents itself at the opening that is effected, and escapes on a violent expiration, or sometimes it is seized with a forceps, or it is found between the lips of the wound. But in all cases we cannot mistake the utility of an operation which admits of no substitute, for the opening of the glottis which readily permits the introduction of a haricot*, for instance, does not, in the majority of cases, allow of its escape, and alterations of the lungs consequently take place, which always prove fatal to the patient.

CASE I.

Fall of a small Coin into the Air-passages. Death in ten years.

A friend of mine, once playing with children, kept throwing a half-franc piece into the air, and catching it in his mouth. In one of these movements the piece fell into the pharynx at the moment of inspiration, and from thence got into the larynx and trachea. The cough and peculiar sound produced, sufficiently indicated the nature of the accident. The coin sometimes remained fixed for several hours, during which period the respiration was regular, but sometimes it was impelled towards the larynx, and then great pain was occasioned by the percussion of the parts of which that delicate organ is composed. The patient always hoped that the coin would be expelled, and he consequently refused to submit to any operation. This lasted for five years, after which time the piece became impacted in a bronchial tube, and caused but little uneasiness. The patient was then obliged to go to India, and symptoms of phthisis there declared themselves gradually. Ten years after the accident he died, and the coin was found embedded in a tubercular excavation. At his death, the patient was thirty-six years old, and he was naturally of a very robust constitution.

CASE II.

Bean in the Trachea.—Early Operation.—Recovery.—Cautions to Operators.—Diagnosis.

The following very curious instance still further substantiates this precept. A little girl, aged eight, stole a red haricot from a grocer, and swallowed it hastily; the form and lightness of this substance rendered it more likely than any other to escape from the glottis by the impulse of the expired air. The accident occurred on the Thursday at three p. m. M. Delens and several other medical men who saw the patient, prescribed an emetic, which occasioned vomiting, but the haricot still remained in the air-passages. The night and part of the next day were passed in alternate periods of calm and suffocation; and on the evening of Friday the child was brought to the Hôtel Dieu. During the night, the bad symptoms were renewed, and reached a fearful pitch of intensity. The next morning, at the visit, I ascertained their nature,—the sound of a foreign body being heard in the trachea, a peculiar sound, by-the-by, which is most easily perceived by applying the ear to the top of the sternum, or even by simply listening to the respiratory sound, close to the chest. The efforts of coughing were very violent, accompanied by nausea and glairy vomiting. The indication to be fulfilled was evident, and on Saturday the 13th February, at ten a. m., she was brought into the amphitheatre. At the moment of operation, we again sought to discover the sound produced by the foreign body, but it no longer

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* A "haricot" is a small white bean, something like the Spanish "caravanse," of which our continental neighbours make some excellent dishes.—*Tr.*

existed, doubtless on account of the haricot being then retained in a bronchial tube. It being certain, however, that the haricot had not escaped already, the opening of the trachea was proceeded with. An incision, an inch long, was practised exactly on the median line of the neck, a little above the upper part of the sternum. The skin and the cellular tissue were cautiously divided, the muscles covering the trachea turned aside, and the trachea itself exposed, without its being necessary to tie a single vessel. Several rings with their uniting membranes were then divided vertically. The incision being prolonged downwards, the edges of the wound were held apart by means of a dressing forceps, and after some rather violent efforts of expiration, the haricot, enveloped in bloody mucus, escaped by the new opening, and fell on the chest of the little patient.

The wound was carefully cleaned from the bloody froth which covered its edges. A lint cloth, smeared with cerate, was placed on the neck, and there maintained by several compresses and loose turns of a roller. The patient cried a great deal during the operation, and, what is remarkable, retained her voice even when the artificial opening was made in the trachea, and gave issue to the expired air. There occurred, moreover, no accident dependent on the operation itself. Nevertheless we should point out a difficulty. Between the sterno-thyroid and sterno-hyoid muscles, and before the trachea, there is a space filled with cellular tissue, in which the instruments lodge as they would in the trachea itself. The incision of the elastic rings being made, the ends of the ring forceps cannot sometimes be engaged in it, they remaining in this cellular space. A little attention will at once enable us to discover and avoid this false passage.

The haricot extracted was about five lines long by three broad, and as many thick, and rather irregular in consequence of the swelling of its cotyledons. In some cases of this kind they have even advanced to germination. In the present instance, the small volume of the bean is explained by the short time it remained in the air-vessels. In the evening the symptoms of bronchitis were sufficiently intense to require a bleeding to the extent of two cups. The night was laborious. On Sunday dyspnea and calm were alternate; the respiration took place almost exclusively through the wound, and was rendered noisy by the adherent mucus. The same evening fifteen leeches were applied to the front of the neck, furnished a great deal of blood, and relieved the patient. The cough became seldom; the night was good, and the feverishness trifling. On the 15th the breathing was easy, with slight hissing through the wound; the skin natural. By the 16th and 17th, the air escaped in very small quantities through the wound, which was perhaps attributable to the swelling of its edges. The articulation was easy and distinct. On the 20th the edges of the wound were closed, emphysema being no longer to be apprehended, in consequence of the mucous tissue which covered the edges of the incision, and rendered the cellular substance completely impermeable. From this moment no accident supervened, and in a few days the relative of the child took her home, the wound being then reduced to one-third its original size. She came again to the Hôtel Dieu in a month after the operation, and there then only remained an extremely minute opening, giving issue to a fine jet of air.

This case presents several interesting considerations to which I would direct your attention; and, in the first place, let us notice the position in which the patient should be placed for the incision of the soft parts and the trachea, and also after the opening of that tube in order to favour the exit of the foreign body. It is evident that the bending of the head backwards is advantageous, and facilitates the division of the external soft parts and of the trachea. But this position is, on the contrary, unfavourable to the escape of air, and still more so to that of foreign bodies. In fact, in the case before us, we saw that the incision first made in the trachea did not permit even the issue of air itself. The slight extent of the incision also contributed to this effect. The flexion backwards of course tends to prevent the separation of the edges of the incision. By assuming the contrary position then, and bending the head forwards, we promote the separation, and the exit of the foreign substance. In this position of the head it was that the haricot was expelled in the case related. Observe then, in your operations, to bend the head *backwards* during the incision, and *forwards* when the incision is completed. With respect to the diagnosis in cases of the presence of a foreign body in the trachea, there is a sign which should be added to those usually advanced as characteristic. I allude to the sensation of a shock against the parietes of the canal, a sensation which may be experienced by the hand and by the ear. It does not, however, always exist distinctly in all persons, or in every period of the case. In fact, the foreign body may become adherent, and then not being displaced by the air, it does not strike against the sides of the tube, or else (enveloped in abundant and thick mucus)

the impulse creates a much feebler sound. The mode of dressing pursued also requires some attention. In the case just mentioned, the edges of the wound were not brought together immediately, in order not to expose the patient to the occurrence of emphysema, an event which the cellular tissue readily permits during the first few days, but which is no longer to be dreaded in some days more, when the cellular tissue is rendered compact, and hardened by inflammation. The cure may then be accelerated by bringing together the edges of the wound.

CASE III.

Bean in the Trachea—Operation on the Fifth Day—Cure in a Fortnight.

A child, ætat. 6, living at Savigny, near Paris, was amusing himself on the 18th of May 1822, by flinging haricots into the air and catching them in his mouth, when one abruptly passed the epiglottis, and slipped into the trachea. He was immediately seized with paroxysms of coughing and suffocation, and remained nearly an hour in this painful situation. Some relief having occurred, he took food, soon after which the symptoms recurred; the cough became suffocative; the vomiting frequent; the anxiety extreme. A medical man was called to the child. He believed, on what evidence we know not, that it was in the œsophagus the haricot had stopped, and he sounded this canal at several intervals, and administered emetics, but, as one might suppose, without success. The paroxysms of suffocation continued; there was a loud *rale*, and the little patient complained of intense pain in the trachea, circumstances which probably induced the attendant to apply leeches to the neck. The fifth day, the symptoms became so severe, that the child was brought to the Hôtel Dieu. On the 23rd of May he presented at the visit the following symptoms:—Considerable prostration of strength, chiefly produced by the accident, partly also by his journey; the voice extinct; the countenance puffy; the eyes projecting and injected; the nose and lips blueish, the respiration extremely accelerated, and accompanied by a loud tracheal rattle, not only in the trachea indeed, but in a great extent of the bronchial ramifications. During the movements of inspiration, a sound of friction, or shock like that of a valve, was heard at the base of the larynx. During respiration, a convulsive cough returned at irregular but close intervals, depriving the patient of breath, threatening imminent suffocation, and obliging us to take instant measures to save his life. The child was accordingly placed on its back, the head bent backwards, and an incision made from the lower part of the cricoid cartilage to the upper part of the sternum, dividing the skin and the cellular tissue. An ecchymosis of rather considerable extent, produced by the leech-bites, seemed to increase the difficulty of the operation; however, a second incision laid bare the trachea, and as there escaped but a very minute quantity of venous blood from the edges of the wound, the opening into the trachea was at once effected. Thus the tube being fixed with the thumb and middle-finger of the left-hand, the index-finger was introduced into the external incision as far as the trachea, and a bistoury was guided by the finger to puncture the cartilages; the opening was then slightly enlarged upwards and downwards, and the air escaped mixed with blood and mucus. A moment's rest was now given to the patient, and then the tracheal opening was still more elongated, with a button-ended bistoury, to the extent of an inch, or an inch and a quarter. The ends of ring forceps were then introduced between the lips of the wound, so as to separate them, and facilitate the escape of the foreign body, which twice presented itself to the wound. An attempt was made to lay hold of it, and with partial success, for a portion was removed, the rest being brought back at the time by a powerful inspiration. It was a haricot, as the child had stated, and had acquired a considerable size. Immediate relief was experienced. A great quantity of thick mucus, mixed with blood, escaped from the wound, the edges of which were kept apart in order to prevent emphysema. The patient was put to bed; the wound dressed simply with a perforated cloth dressed with cerate, on which charpie and a compress were employed. Barley tisan, &c., for drink.

12. Lividity of the nose, lips, and cheeks, now replaced by a considerable degree of redness; fever during the day; much discharge of mucus through the wound; cough frequent; nevertheless the night not bad; some sleep, mucus rattle in a great extent of the anterior and superior region of the lungs; pulse weak and wretched before the operation, now forcible, and even rather hard and frequent; skin hot and moist; respiration accelerated; leeches to the base of the neck; the same dressing as before, and the edges of the wound to be still kept apart; drink, &c.

25. The day and preceding night pretty good, and the bronchial and tracheal irritation somewhat calmed by the leeches. The face less coloured; the respiration a little less embarrassed, though still frequent; pus and mucus discharged from the wound; mucous *rale*. Belly free from pain, but

hard; constipation for three days; considerable fever. The edges of the wound were brought together by adhesive straps, and graduated compresses. A teaspoonful of mercurialized honey; barley water.

26. Cough severe, fever redoubled; great agitation; the bandage deranged by the coughing; nevertheless a pretty good night and some sleep; respiration embarrassed and accelerated; pulse frequent; skin hot, and rather moist. Some apprehension of inflammation of the lungs, or of a phlegmonous inflammation in the cellular tissue of the neck about the wound, Ipecacuan syrup, lavement with mercurial honey, bandage with diachylon, and compresses to keep the edges of the wound together; six leeches, same drink, &c.

27. Sensible improvement; leeches have done much good. Syrup not given; cough less frequent; respiration still rather accelerated, but less oppressed; moderate feverishness; considerable discharge of pus from the wound, but bandage not deranged; mucous rale diminished. The child becomes weak, pale, and asks for food. Same tisan and bandage; a little soup and bouillie.

28. Improvement continues; cough considerably less frequent: fever almost gone; respiration a little oppressed; voice natural; edges of the wound afforded a copious suppuration, though nearly united; no more discharge of mucus; good appetite; milk and barley-water, soup.

29. Fever gone; edges of the wound covered with granulations and still allowing the escape of a little air; cough seldom; a little mucous rale; great appetite.

Up to the 4th of June nothing particular occurred. The child was then fully convalescent; the wound, almost healed still furnished a little pus, but neither air nor mucus. The cough had nearly ceased; the voice was natural; the digestive functions unimpeded; and he was then only enfeebled by the pain and the loss of blood and restricted diet he had sustained.—Dupuytren. *Lancet.*

Tracheotomy,

Mr. Bordie added, "is shown on the dissecting table, and on the dead body, to be an easy operation, but on the living subject it is a very different thing. I never lost a patient from the operation, but I once heard of a case that died after it, and on opening the body the bronchi were found to be filled with blood. The French surgeons say, that if you dissect carefully down to the membrane lining the trachea, and divide it, that you will not have any hemorrhage into the tube. Whenever I perform the operation, I always take up the vessels as they are divided. I think it is best to perform the operation with a trocar, and turn it downwards. The patient bears the canula in very well. I generally use an elastic gum-tube. Magendie says, that you may introduce an instrument *downwards* into the trachea, and break down the lungs without exciting coughing, but that if you introduce it upwards, towards the glottis, cough comes on immediately."—*Lancet.*

Semnopithecus Nestor.

Semn. saturatè cinereus; capite, prymnâ, femoribus posticè, caudâque pallidioribus, illo fusco tincto, hac ad apicem, mystacibus longioribus, labiis, mentoque albidis; facie, auribus, manibusque nigris; artubus nigrescentibus.

Long. *corporis cum capite*, 16; *caudæ* 20 unc.—*Hab.*

The prevailing colour is a deep grey with a slight tinge of brown, becoming paler on the back of the neck and on the head, where the fuscous tinge is much more marked. On the loins the deep grey passes into a pure light grey, which is continued on the hinder part of the thighs and along the tail; the tail becomes gradually lighter in colour, and is for several inches at the tip almost white. In passing down the limbs the prevailing grey becomes gradually darker, the colour of the hair being nearly black. The under parts are somewhat lighter than the upper, particularly about the throat. Passing upwards from the throat the colour becomes much lighter, owing to a greater proportion of the lower part of the hairs being exposed. Hence the lips, the chin, and the whiskers are nearly pure white, the tips of the latter which are prolonged backwards, being alone grey. Over the eyes is the ridge of stiff black hairs, which is usually met with in the Semnopitheci.

The hairs are of moderate length, measuring about an inch and a half.

The moderate length of the hairs, the somewhat lighter colour, and especially the white of the lower part and sides of the face, distinguishes this species from Semn. Leucoprymnus.

It may be assumed to be a native of India; but the dealer of whom it was purchased knew not whence it was obtained.—*Proceedings Zoological Society* 1833.

Note.—Can any of our readers inform us of the habitat of the monkey described above: if it is a native of India or not?—*Ed. In. Jour. Med. Sc.*

On the use of the Stomach-pump in breaking down Coagulated Blood in the Bladder. By J. Simpton, Surgeon, Ecclefechan, N. B.

Case 1. Mr. G—k, aged 76 years, has been subject to retention of urine for years past, which was generally relieved by fomentations, without the aid of the catheter. On the 18th February, 1826, I was requested to see him. He had passed no urine for 48 hours, the bladder was enormously distended, and upon introducing the catheter, which was done with some difficulty, owing to enlarged prostate and strong spasm of the neck of the bladder, a large quantity of brandy-coloured urine was drawn off. Inflammation succeeded, to subdue which, relays of leeches, fomentations, diluents, and in fact every antiphlogistic measure that the patient's age and constitution would admit of were found necessary. The distance from my own residence being three miles, and the bladder having now got so irritable as to render it imprudent, if not impossible, to leave a gum catheter introduced, my excellent assistant, Mr. Scott, (now surgeon, Pool Lane, Liverpool,) was obiged to remain to draw off the water, as it collected. Upon the inflammation subsiding blood began to come away in considerable quantities mixed with the urine. Things went on in this way for some days, when, on the 24th, a short time after the water had been drawn off, Mr. G. was seized with severe pain and the sense of distention, but on the instrument being reintroduced no water would flow. After some fruitless attempts Mr. Scott sent for me, when it appeared evident that coagula had formed, for, on withdrawing the catheter, its eyes were completely plugged, and on moving it from side to side when in the bladder, it gave a sensation to the fingers as if its point was immersed in some consistent or boggy substance, a particle of which I was unable to remove. The patient was in dreadful agony, and being made aware of the cause, begged me, for God's sake, "to cut in and take it out." Undisputed authority would have sanctioned a compliance with the old gentleman's request, for not long previous, and under nearly similar circumstances, Mr. Hutcheson, with the approbation and in the presence of Sir Astley Cooper, cut in above the pubes, and scooped out the coagula with a table-spoon. Mr. H.'s patient died, and I had every reason to dread that mine would have gone the same road. Confident that the excruciating pain did not proceed from actual distention of the bladder, I resolved to break down the coagula by mechanical means, and for this purpose inserted a tube, connected with the shoulder of the stomach-pump, into a large double-eyed catheter, and threw in a quantity of tepid water with as much force as the pump would work, wriggling the catheter at the same time as much as possible, so that the streams might play in all directions. Pain was in some measure increased by distention, but this was of short duration, for in less than a minute after removing the tube the injected fluid came away by the catheter, mixed with a considerable quantity of blood. The bladder was completely emptied and immediate relief followed, so much so that the patient expressed himself "in Heaven." In a few hours blood again collected, coagulated, and was removed in the same way with the greatest ease.

The hemorrhage now diminished, but it was the 9th of March before he could dispense with the use of the catheter, since which time he has not required its aid. Mr. G—k still lives.

The second case may be soon told. Mr. Thomas Maxwell, aged above 70, had been subject to retention of urine for some years, but was in the habit of using the catheter himself. The urine was often mixed with blood. On the 15th July, 1826, feeling more pain than usual, he introduced the instrument, but no water would flow. The pain becoming severe with sense of distention, I was requested to see him. From the report of the messenger I immediately suspected what was the matter, and dispatched the abovementioned Mr. Scott, prepared with catheter, pump, &c. Mr. S. found it a case, so far as coagula was concerned, exactly similar to the former, and in a few minutes relieved the poor man in a similar manner. He lived some years after, still, I believe, requiring the aid of the catheter, but without any more attacks of this kind.

Such cases as the above do not often occur, particularly to local practitioners, but, however seldom, it is certainly a desideratum to relieve the patient if possible without the use of the knife. Some die worn out with pain without the coagula being removed in any way.* Mr. Heavisides, an East Indian, was one. He entered the hospital with what was supposed retention of urine, but no water would flow by the catheter. He died next day, and a large coagula was found in the bladder. The bladder, to be sure, was diseased, but might not the man's life have been prolonged by washing out the mass? The presence of coagula, in my opinion, is easily detected, and by the above plan just as easily removed.

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* Vide Med. Chir. Review for Oct. 1832, p. 492.

The injection tube belonging to the stomach-pump is what I use—its extremity is too large for the calibre of the catheter, but I connect them by a small brass tube, which slides over the point of the former and into the latter.—*Med. Chir. Rev. Jan.* 1834.

ON THE EFFECTS OF THE SECALE CORNUTUM IN GONORRHŒA.

About the modus operandi of the secale cornutum in leucorrhœa and menorrhagia, Dr. Spajrani expresses his opinion in the following way, leaving, however, this subject for subsequent enquiries:

"I am," says he, "rather inclined to believe that this remedy does not act either as an astringent, or as a stimulant, but more as a sedative on the capillary vessels; and for this reason it may be conveniently used in certain instances of active hemorrhage and of vascular congestion, where there exists a state approaching very much to inflammation; but yet it is not to be used in instances where some acute inflammation is present, for which stronger means may be employed." With the view of ascertaining these therapeutical principles, and from the advantage already obtained by the ergot of rye in leucorrhœa, we thought to incur no great risk by trying it also in gonorrhœa, at first in females, and then, if not injurious, in males. It is true that the preternatural secretion of the mucous membrane of the genital organs in gonorrhœa is induced by a specific virus; but still we readily believe that its essential pathological character is inflammatory.

Case.—Mary Ann C., æt. 26, single, admitted on the 9th of May, 1833, has had gonorrhœa for nearly two months; has not been regular for several months, and has been subject to leucorrhœa. Bowels regular.

Six grains of the ergot of rye were ordered to be taken every four hours.

May 13th.—The discharge ceased after having taken four or five powders, and has not returned since. Suffered no inconvenience by taking her powders; they were ordered to be taken only night and morning.

30th.—She had been menstruating on the previous day, and was left without medicine.

June 6th.—Has no discharge at all, and she says she is quite well. Discharged cured.

Case.—Harriet R., æt. 27, married, admitted on the 20th May, 1833. Has had gonorrhœa four years ago, of which she was perfectly cured. She was taken ill again with the same complaint, caught from her husband, about ten weeks ago, for which she has been treated, as an out-patient at St. Bartholomew's Hospital, under Mr. Lawrence. Balsamic medicines and mercurial pills were given to her, from which she was much relieved. Now the discharge is thin and white, when before it was yellow and thick. Complains still of some starting pains through the womb, but has less pain in making water. Complains of pain in her right leg, where there is inflammation of the periosteum, on the shin bone, probably of a syphilitic character. Her bowels being costive, a cathartic powder was ordered, and five grains of the secale cornutum to be taken every fourth hour, beginning the following morning.

May 23d.—The discharge is less: she feels sick after having taken her powder, and complains of being very weak. Pergat.

30th.—The discharge is less than on the preceding day of attendance. She has now no pain in making water, but continues to feel sick after taking the powders. Has had no giddiness.

Continue the powders three times a day.

June 6th.—The discharge has ceased. The secale was suspended, and the mercurial treatment was adopted, for what we thought a syphilitic complaint.

Case.—John F., æt. 40, a baker, admitted on the 21st June, 1833. Has had gonorrhœa about six times: it usually resisted every remedy, and once he had it for nine months. Now he has had gonorrhœa for about three weeks: has great pain and scalding in making water, and generally some drops of blood follow. Has a great deal of discharge, and the orifice of the urethra is redder and swollen. In the night he has painful erections.

Five grains of the secale cornutum to be taken every four hours.

June 22d.—We saw again the patient. He has taken five powders. The discharge has not abated, but he thinks he has less pain in making water. Pergat.

28th.—He has taken about sixteen powders. He has no pain in making water. He has still painful erections at night, but the opening of the urethra is a great deal less red, and the discharge considerably abated. He has now no inconvenience except a very slight feeling of warmth in making water. He continued the medicine in ten-grain doses every four hours until the 11th of July, when he was nearly well, and requested to be discharged.

This patient was under Dr. Ryan's care, and was repeatedly seen by ourselves and colleagues.

Case.—Only a few days ago we had in private practice a patient affected with gonorrhœa for the first time. The symptoms were not severe; the discharge moderate. Being an individual of a delicate constitution, and of very regular habits, we expected to do him some good in this case with the secale cornutum.

Three grs. of Battley's Extract were ordered to be taken every three hours. The following day the discharge appeared a great deal less, and the remedy was continued. Two days afterwards, the discharge increased, as well as the ardor urinæ, and he had painful nocturnal erections. The remedy was brought to five grains every three hours, but was soon afterwards suspended, and other means adopted. In this case the secale cornutum certainly increased the severity of the symptoms; and the discharge, which was moderate at first, and thin, became afterwards copious, thick, and sometimes tinged with blood. The pulse was also feverish and sharp, the skin warmer than natural. This patient is of a very costive habit, but has great aversion to take purgatives. Had we used them previously, or simultaneously with the secale, we could, perhaps, have obtained a better result. This was necessarily done after we had resorted to the other usual means generally employed for the complaint.

SHORT NOTES AND OTHER CASES, BY DR. RYAN.

Case.—M. M., æt. 22, has contracted gonorrhœa from her husband; became a patient under my care at St. John's Dispensary.

Sept. 12th, 1833.—Has been 2 months ill.

She was ordered 3iss. secale in twelve powders, one to be taken three times a day.

Sept. 16th.—Discharge nearly gone. To continue.

23d.—Discharge has entirely ceased.

Case.—Charles C., æt. 22, has suffered from gleet for six months. Commenced the secale September 17th, 1833, and on the 23d, was nearly well. He has taken a variety of medicines, but nothing stopped the discharge so rapidly as the powders.

Case.—G. S., æt. 34, has been six months affected with gleet. He commenced the secale October 30th, took twenty-four powders without any benefit. This was a morning patient, and had the medicine of a druggist, and perhaps it was bad.

Case.—A. B., æt. 34, has suffered from gleet for eight months. He was cured by twelve doses of secale cornutum.

Case.—T. A. H., æt. 19, applied to me, November 5, 1833, has had gonorrhœa for the first time. Symptoms severe, ordered the secale.

November 8th.—Discharge more copious. Ardor urinæ severe. Secale omitted.

Ordered corbonate of soda in barley-water, or linseed-tea, &c.

In this case I did not expect much benefit from the secale, but was resolved to try it. Every medical practitioner is aware that a first gonorrhœa is much more severe and indomitable than when the patient has had the disease frequently, or when the acute symptoms have ceased. But as I have known cubebs repeatedly arrest gonorrhœa in the acute stage, I saw no objection to employ the secale cornutum.

From the above facts it appears to us quite evident, that the secale cornutum has a peculiar action on the mucous membranes; but if exhibited when there is a state of acute inflammation, their morbid secretions may be considerably increased: on the contrary, when a more chronic form of inflammation does exist, the secale cornutum may have a beneficial influence in arresting their prenatural discharge. Now to give a more satisfactory idea of our result on the employment of the secale cornutum in hemorrhages and leucorrhœa, we put down all the different instances of hemorrhage and those of leucorrhœa in the following tabular form, indicating the result of all the cases of hemorrhages and leucorrhœa which came under our observation from the 16th of April, 1832, to the 4th November, 1833, and were treated with the secale cornutum.

Different forms of the Disease.	*Total number of Cases.*	*Successful Cases.*	*Unsuccessful Cases.*	Remarks.
Menorrhagia, ...	12	8	4	
Hemorrhage from the Rectum,	2	2	0	
Hæmatemesis, ...	4*	3	1†	* We include in the whole number, the case treated by Dr. Macmichael, at the Middlesex Hospital.
Epistaxis, ...	1	1	0	
Hæmoptoe, ...	1	1	0	† We put down as an unsuccessful case, the first attack of the disease of Elizabeth Pilcher, (case VI.), although, on the second, the secale turned out very beneficial, when given in a proper dose.
Leucorrhœa, ...	10	7	3	
Total, ..	30	22	8	

Note.—We did not put down in this table the cases of gonorrhœa, because they were related merely to show the effects, and not the efficacy, of the secale cornutum on that disease. All we can say, from the limited number of observations on this subject, is, that perhaps the ergot of rye may be found of some service in the more chronic form of that disease.

TREATMENT OF COMPOUND FRACTURE OF THE LEG.

To the Editor of the Medical Gazette.

SIR,—The following case of compound fracture of the leg may not be devoid of interest, as serving to illustrate the beneficial effects likely to result from a method of treating accidents of that description, which may, perhaps, fairly lay claim to some degree of novelty.

James Porter, æt. 18, was admitted into the Newcastle Infirmary on the 9th of May, 1833, with a severe compound fracture of the right leg, in consequence of a wheel having passed over it. The leg was crushed nearly flat, and exhibited a very extensive lacerated wound, reaching nearly from the knee to the inner ankle. The tibia was exposed for several inches, and to a considerable extent was denuded of periosteum; a triangular piece was so loose as to be removed from the limb without effort. It became a serious question to determine whether, with so severe and extensive an injury, an attempt could with propriety be made to save the limb; but having just at the time completed an apparatus, which I believed to offer peculiar advantages for the treatment of such an accident, I resolved to give it a trial. Those advantages consist in the leg being slung in an easy horizontal position, and the capability of dressing and cleaning it thoroughly and frequently, without any movement or disturbance whatever.

I accordingly placed the injured leg on the apparatus referred to, which admits of the knee and foot being rendered fixed points, while, by the action of a screw, the necessary degree of extension to reduce the fracture is exerted and maintained. The widely-separated lips of the wound were then drawn together with adhesive straps, and other necessary dressings, and a many-tailed bandage was applied.

The lad had received some bruises on the abdomen, of which he complained much; a few leeches were applied, from which he derived relief; and a cooling plan of treatment was pursued. After the dressing he made scarcely any complaint of the leg. In three days the dressings were removed and replaced without disturbance, which was afterwards done regularly every second day. Very little swelling took place; but from so extensive and lacerated a wound the discharge was necessarily very great; nevertheless, the greatest cleanliness was easily observed, in consequence of the ease with which it was dressed. In a few days all constitutional disturbance subsided; the wound began to contract, and was only prevented from finally healing by a large portion of bone, which had died in consequence of being denuded of periosteum.

The process of exfoliation was necessarily slow, and required four months for its completion. At length a mass of bone was thrown off, measuring in length nearly two inches, and with what was originally removed, four inches, and in one part comprising almost the entire circumference of the tibia, but gradually shelving off to the surface towards the lower end. The cavity which remained gradually filled up, and at the end of six weeks the wound has entirely healed. The leg is without deformity, though the bone is somewhat broader in its renovated diameter, and the length is exactly preserved. The most remarkable feature in its appearance is the very extensive cicatrix left by the wound.

Without doubt I must look upon the termination of the case as highly satisfactory, when considered as a test of the new description of apparatus employed. Without the advantage of perfect quietude, secured by the sling, and the horizontal attitude of the leg, and the unusual facilities afforded for cleaning and dressing, I scarcely think it possible that so serious an injury could have been conducted to a safe conclusion. A detailed description of the apparatus employed would take up too large a space in your valuable journal; but as it is my anxious desire that it should be inspected and tried in practice by my professional brethren, I may be permitted to mention that it may be examined at Messrs. Weiss's, in the Strand; and that a short explanatory description of it, illustrated with plates, has been lately published by Mr. Highley, in Fleet Street.

On inspection of the apparatus, it will be found, in addition to the peculiar facilities for dressing compound fractures of the leg, and for suspending it in an easy sling, to possess an arrangement for fractured femur, which I have used successfully, and which may not be unworthy of attention, more especially in its applicability to fractures in the upper third, or in the neck of the bone.

I remain, Sir,

Your obedient Servant,

J. M. GREENHOW.

Newcastle, Nov. 2, 1833.

[*London Medical Gazette, Dec.* 1833.

NOTE.—We wish the apparatus employed in this case had been described. But we doubt not the ingenuity of our readers will enable them to apply the principle of suspension in such cases; should they think fit to do so.—*Ed. In. Jour. Md. Sc.*

THE INDIA
Journal of Medical Science.

CALCUTTA; AUGUST 1, 1834.

Liver disease is such a common occurrence in India that a case of it is expected to embrace some points of prominent interest before a decision is come to respecting its publication. Not only is the disease well known, but its mode of treatment is supposed to be so well understood, that any thing new can scarcely be enjoined on that head. Granting all this, we nevertheless hear of cases of liver disease occasionally, from which even the experienced may derive some addition to their knowledge; and which are fraught with instruction to the junior members of the profession, more especially those just commencing their practical career. Such a case will be found in our preceding columns from the pen of Mr. Wray. It formed one of those tedious and baffling instances demanding the exertion of no common skill, discrimination and judgement, on the part of the physician; no less than of docility and fortitude on that of the patient. In spite of vigorous and judicious treatment cases like this *will* at times run on to suppuration. Unfortunately, hitherto as well as we can recollect, when the abscess has pointed externally, the discharge of its contents by an artificial or natural opening, has for the most part given but temporary relief, and too often, the sufferer after lingering for some time, more or less, according to circumstances, sinks. The result of Mr. Wray's case, so far as it goes, is highly gratifying, for the lesion in the viscus would appear to have undergone complete reparation, and the suppurative process to have entirely ceased, so that the puncture, by which the matter found an outlet, completely healed, and the patient left the hospital apparently entirely restored to health. So far, we repeat, the result is very satisfatory. We cannot help, however, yielding to some misgiving on the subject—which only a further history of the case can entirely remove. We should, therefore, deem it as a favour if Mr. Wray would kindly add to the obligation he has already conferred on us, by informing us at his convenience, whether the man still continues to do well; or whether he has had any return of his complaint; and if so, whether any tumefaction of the liver has manifested itself in the former place? Should we receive such information as may dispel our fears on the latter point, it will furnish a well grounded hope of recovery in cases apparently equally desperate as the one adverted to. We have taken the liberty of somewhat abbreviating Mr. Wray's communication, but without in any way detracting from its essential merits.

Mr. Burnard's case of extensive poisoning suggests reflexion,—first, as to our great ignorance on the subject of Indian poisons in general,—and secondly, as to the pressing necessity which appears to exist for instituting some authoritative measure for the prevention of such a calamity in future. Here there has been enormous loss of life, though there is no reason, judging from the circumstances as they are detailed, to suppose that the catastrophe was the result of malice. The liquor prepared from the flowers of the Mohuwa tree is a very favourite potation with the up-country natives. To add to its strength the distillers of all kinds of intoxicating spirits, sold in the bazar, are generally understood to drop some powerful narcotic ingredient into the still or steeping pot. Thus, we have heard that opium has been so used, and we learn from Dr. Fleming,* that Nux Vomica is sometimes used for the same pernicious purpose by the distillers of Arrack. On the present occasion the article used appears to have been a root, which we are inclined to believe from the appear-

* See Asiatic Researches, Vol. XI.

ance of the specimen forwarded by Mr. Burnard, and other circumstances, to be the root of the Aconitum Ferox, a most deadly poison. The article was purchased from a bunyah, and this leads to the enquiry are there any purposes for which the drug is used besides those adverted to by Mr. Burnard? Surely there ought to be some sort of check on the exposure in shops of such deadly drugs as these, wherewith, as we have seen, many lives may be destroyed either at the instigation of lucre or something worse. As intoxicating liquors are a sort of necessary evil, some degree of care ought to be taken, that the preparation of them does not fall entirely into improper hands. A portion of the people of all countries will, and must have their dram,—it ought therefore to be a point of some importance, that they should have it good. Many lamentable cases of delirium tremens and other diseases ending in death, that yearly occur at every station in India; we have reason to believe, derive their intractable and fatal character, from some deleterious admixture in the liquor, partaken of in some low bazar drinking shop by the unfortunate individuals.

The simplest process of nature is occasionally attended with risk. The morsel to which hunger gives its zest, sometimes becomes an instrument of sudden but certain death. That the simplest of all operations almost, viz., lancing the gums of an infant, may at times entail the most alarming consequences, Mr. Fuller's case sufficiently and emphatically illustrates. We have heard of such untoward consequences succeeding to lancing the gums, nay of their having had a fatal termination; but it is consolatory to know that such instances are rare. For ourselves we never had a case of the kind under our care, and we are free to confess that we rejoice thereat. The child's life, in the alarming circumstances stated, was under providence, saved by the decision of the practitioner. All means but the cautery had been made trial of, and had failed. The case was desperate—and the Surgeon was therefore permitted to use what might appear a desperate remedy; and yet the cautery is more formidable in appearance than in reality. The *idea* of the application of a red hot iron, especially to the gum of a tender infant, takes hold of the imagination and may be apt to frighten parents. We have deemed it our duty to state the case just as we received it—because we conceive that the interests of truth and humanity, render it imperative upon us, not to disguise that there are cases where scarifying the gums may be dangerous. This ought not to occasion irrational alarm however, more than the fact that small pox may now and then follow vaccination. To object to the Jennerian antidote altogether, because this may now and then be the case, would not be more irrational than for parents to evince a reluctance to their children's gums being lanced, when urgently required, on the ground that a dangerous case of loss of blood, consequent to such lancing, had been related by Dr. Fuller, or instances, even where death had ensued, been cited by others! As far as our experience goes, we should say that such cases are the exceptions that prove the rule. They do not even amount, we believe, to the 9998th and 9th cases out of 10,000. Mr. Fuller's case (which we could wish had been a little more detailed at the commencement,) shows that the operation of lancing was not had recourse to so early as it ought to have been, owing to the interference of the parents. Had the gums been lanced earlier, we cannot help thinking that the result would have been much less embarrassing. Here, however, the medical man was interfered with. Such things will happen, however, and the non-interference principle is the very last that can be understood or acted upon in domestic politics! To make the matter clearer, we would say, that if the child's gums had been lanced in the early, or

inflammatory, (if we may so phrase it) stage of irritation, the success and the relief would have been equally complete. Delayed on the other hand, till the fever assumed less or more of the typhoid form, the result was very different. It would indeed be a great desideratum, if we could be enabled to predicate what are the circumstances that precisely contra-indicate lancing of the gums. In general, we should be inclined to lay it down as a rule, that where the digestive organs are manifestly affected by the dental irritation (and who that recollects the connection between the 5th pair of nerves and the great sympathetic will be surprised at its degree and extent?)—where there is tenderness, tension and heat of the gum itself, no less than heat of the head, and other signs of cerebral excitement — that the gums should be lanced *at all events*. Even if the worst should come to the worst—we have the cautery ;—and even if the child should sink from an unexpected hemorrhage following the operation ; it ought to be remembered that death would have been no less inevitable had no such operation been performed ; and that, if it *must* take place, death by syncope, is infinitely less revolting, and most probably less agonising, than death by convulsions ! On the whole the prudent practitioner will derive an instructive hint from Mr. Fuller's case, and with a very weakly strumous, or scorbutic infant, will be cautious in lancing the gum. We cannot, however, dismiss the case, without expressing our cordial sense of the truly Surgeon-like manner in which Mr. Fuller acted under the embarrassing circumstances of the case,—circumstances which might well have perplexed the oldest heads,—but in this, as in most instances, *trial* proved the test of solid merit.

Those who have been nurtured by the Alma Mater of the Northern Athens, will, we doubt not, recognise one of "the old familiar faces"—(as Charles Lamb would say) drawn to the life, by Scotus. For our own part, unless memory fails us, (the natural consequence of many revolving dark brown years,—) we must confess that the limning comes home to us with happy fidelity — albeit our author is a little severe in his last paragraph, upon the Professor of Chemistry as an economist and a bachelor. After a fashion Dr. Hope was a popular lecturer, (we speak of him as we remember him)—that is to say, his subject and his experiments were so. The Professor himself occasionally was too dictatorial—had too much of the *sic volo* in his manner to be quite popular. In fact he never was so, in the same sense as was understood of Dr. Gregory and others. There are, we presume, several now in India who recollect a certain sort of O. P. row in the Edinburgh University, relative to an advance of one guinea upon the price of tickets to the different classes. We almost forget the year, it was so long ago ! Suffice it that Dr. Hope was supposed to be one of the prime movers of the measure. Accordingly, at the commencement of the Session, he was received with hisses, shouts, clappings of feet and hands, and all sorts of noises. The Professor, with awful majesty, shut his lecture book, and turning to one side of the class, looking up to the gallery, desired with 'voice potential'—that the disturbers should be denounced to him ! He repeated the absurd request—with the threat that the guilty parties should be delivered over to the tender mercies of the *Senatus Academicus*. The last astounding words were delivered with an ominous lisp, and a decisive nod of the head. What was the result? Every person in the class, bowed his head upon the desk before him, and the noise became ten thousand times more astounding. This was intolerable—and the Doctor walked with indignant strut out of the lecture room. For several days there was no lecture. At length the Professor came back and quietly resumed his functions, but during the whole season, continued

to be occasionally interrupted by eruptions of the human vesuvius. Afterwards, however, he took matters more smoothly and gave up the brutum fulmen about the Senatus Academicus, and expulsion; which, had it never been hurled from the first, would, perhaps, have insured a quicter reign for the worthy Professor—who certainly always proved himself a very instructive, and pains-taking teacher, as also one of the most brilliant and successful experimentalists in Europe.

To remove a limb that has become worse than useless, or some disfiguring excrescence, is comparatively an easy task; but under circumstances the most unpromising to determine boldly upon a course for repairing some dreadful injury from which others, though well educated and competent practitioners, had shrunk, and to carry that determination successfully through; shows at once the skilful and the decisive Surgeon. The full justice of this remark, we much fear cannot be rendered so comprehensible to our readers, as we could wish, since Mr. Raleigh's case of 'operation for the formation of new eyelids'—unfortunately is not accompanied by a drawing. After all—'seeing is believing'—as the homely adage truly saith, and it is to us a source of unfeigned regret that we cannot illustrate Mr. Raleigh's description of the deplorable condition of his truly meritorious and brave patient by a faithful sketch; for that would at once convey a more vivid idea of the apparently insuperable difficulties which stood in the operator's way, than all the descriptions in the world. Previous to the operations detailed in Mr. Raleigh's paper, we accompanied the author in his visits to the unfortunate patient. We have seldom witnessed a more pitiable spectacle—and what added to the poignancy of feeling for the poor fellow, was the recollection of the generous and gallant impulse which had terminated so unhappily for himself. Suffice it that he lived in a state of constant torture, more especially when trying to compose himself to sleep. Let the reader imagine a man who has totally lost the use of one eye, but retaining the vision of the other perfectly, has had both eye-lids cut off, so that the exquisite sensibility of the nerve is constantly on the stretch, deprived as the ball is of its natural veil. Here it is true the lids were not cut off, but it was the same to the patient as if they had been, for they were so contracted and disorganised by the cicatrising and shrivelling process following the burn, as to be utterly ineffective to protect the retina. The whole organ appeared enlarged and inflamed, and a constant stream of tears flowed down the cheek.

In a word, as we have already observed, it was a pitiable sight to see a worthy and brave young man reduced to such a condition, and no one could look upon him without the wish that something were done for his relief. Nevertheless, though other members of the profession had experienced the same cordial sympathy for the individual, yet, such was the very discouraging aspect of things, that they could not hold out any hopes of benefit from a surgical operation. Mr. Raleigh, after careful examination, and a candid statement of all circumstances pro and con to the patient himself, came to the determination of trying the effect of an operation, or rather a series of operations. Dupuytren, in his admirable 'Leçons Orales'—has some very important remarks upon the mode of operating on cicatrices of burns. By the way, in a recent number of this Journal, we alluded with unfeigned regret to very ominous reports afloat respecting that eminent Surgeon's state of health. Need we declare, therefore, with what corresponding gratification we have learned from subsequent accounts that he has been restored to health. To his profession, no less than to humanity, this is a dispensation

that cannot fail to excite grateful emotion in the mind of the enlightened reader.

But to return to our subject—the treatment (says Dupuytren) most applicable to cicatrices, consists in general, in bringing back the parts to the condition which they previously possessed, by means of an operation. But the success of this proceeding does not depend exclusively on the manner of its performance, or on the exact observation of the established rules of art; it also depends on the disposition of the cicatrix which is the subject of our interference. As a general rule, the more superficial the adhesion, the easier and more effectual is the operation; while, on the contrary, it is more difficult and uncertain, the more deep has been the extension of the burn. In this case, indeed, the mere *displacement* may be obviated, but the *movement* of parts seriously injured, or destroyed, it is nearly altogether impossible to restore. Here too was the *rub* in Mr. Raleigh's case, for nine out of ten, we should imagine would have concluded that 'the *movement* of parts' was so seriously injured that nothing could be done. We must never operate (further continues Dupuytren) unless we are sure of obtaining, by means of posture and bandaging, a cicatrix which is larger and less deformed, than the one we desire to correct. 'This precept particularly applies to the face, which indeed, it is generally most prudent not to touch: in truth, art presents but feeble prospect of assistance here, for it is far from uncommon, instead of mending matters, to find that we have increased the deformity by the addition of another cicatrix to that which previously existed.' These remarks of one of the first Surgeons in the world, will convey some notion of the difficulties that beset an operation such as that undertaken by Mr. Raleigh. Having been present, we can testify that nothing could exceed the fortitude with which the patient bore those painful trials, through the agency of which he hoped to be restored to the full enjoyment of the most valuable of the senses. With reference to an attempt made by Mr. Raleigh to transplant a portion of integument from the arm to form a lower eye-lid, we fear from all we can recollect that such attempts must always fail. It is true we have heard of instances where the tip of a nose or of a finger bitten or cut off, and immediately applied again, has cohered. A case of the latter we recollect was attested by Mr. Balfour of Edinburgh. In such cases, supposing them to be sufficiently well proved, we can conceive a harmony of parts, and an aptitude as it were to re-unite, which cannot so readily be imagined of parts in their natural situation always distant, brought into sudden contact. Dr. Dieffenbach of Berlin, one of the latest writers on the subject, in his Surgical observations on the restoration of the nose, and on the removal of polypi and other tumours from the nostrils;* states that he never succeeded in re-uniting portions of skin which were once entirely separated from the body. The number of his attempts, he declares, was very considerable, as he availed himself of the opportunity which almost every surgical operation he performed, afforded. For instance, when removing tumours, he generally took away a portion of the skin with them (as, indeed, is almost in every instance done,) which he always re-applied to the wound; but on removing the bandages he generally found it putrid, or of a whitish appearance, or black or blue, or dissolved into pus, with the dry epidermis sticking to the linen. To conclude, Mr. Raleigh's patient came to show himself to us after his recovery, most grateful for the relief he had received, and it was no less gratifying to witness the extraordinary success of the operation itself, than to think of such a deserving man being restored to his useful and respectable pursuits.

With reference to an extract in our last number, recommending the internal admi-

* See translation by J. S. Bushnan, Esq. &c.

nistration of Iodine in cases of severe salivation, taken from Hufeland's Bibliothek der Practischen Heilkunde; Mr. Raleigh details a case where the medicine in question brought on profuse salivation! Such are the extraordinary discrepancies to be frequently met with in the records of our profession, where no question can be entertained for a moment as to the credibility of both parties. The fable of the Chameleon would appear to have been written on purpose for the benefit of medical men, to evince the absolute necessity of caution in drawing general conclusions, from isolated facts.

The eagerness with which the natives of this country at the present day seize upon every means of improving themselves, that may occur, never, perhaps, was more manifested than in the establishment of Native Medical Societies. But six months have passed since the proposal of forming a society of this kind was made by Mr. Hutchinson in the pages of our journal, and already one has been established in Calcutta, another at Barrackpore, and a third is talked of at Dum-Dum. This fact speaks well for the class of young men from which Sub-Assistant Surgeons, we presume, are to be drawn; and for others who have already entered upon the active duties of their profession: while in its effects, we hesitate not to express our opinion, scarcely any method attended with so little expense, could be more effectual in promoting, ardour for the acquirement of Medical knowledge among the class of men for which it was originally proposed, as well as the progress of the science.

We like this establishment of a Provincial Society, because the thing is good in itself; and good in the manner of its being done. The great end of Institutions of this nature is, after all, the personal communication of knowledge. Some Societies reflect upon all their fellows a portion of that lustre, which they themselves derive from those who are talented and active. Others, again, have at one time or another enrolled on the list of their members, the names of all who have been distinguished in their locale for literature and science. To them it is an honour to belong; and therefore a desirable distinction is gained by becoming a member. But in the ordinary run of Societies, the great point (and the most important one it is after all,) to be looked for, is mutual improvement, by means of personal discussion upon the subjects mooted, and the papers read.

Such being the case we are pleased to find, that Provincial Societies are formed. For in this way the spread of knowledge will be quick in proportion to the extension of these Societies. From one Society little could have been hoped. Years ago it might not have been objectionable, but now it would be quite inadequate to the state of the country. But in Provincial Societies the expenditure will be under the immediate controul of the Members, and economy will be the order of the day. At the more distant stations, nay, at every station out of Calcutta, it would have been impossible for its Members to have attended a mere Calcutta Native Medical Society. They could have derived no benefit from the discussions. They could not have been improved by comments upon their own papers. This state of things would not have answered the views of the proposer of the plan of a Native Medical Society; and therefore, he, like ourselves, must be gratified at finding such widely extended advantages are likely to arise from this mode of adopting the scheme. We trust the good example now set will speedily be followed at other places. There are many Stations of the Army where Societies of this kind might be formed, as at Agra, Meerut, Cawnpore, and some other large cantonments. In fact, it is desirable that they should be instituted wherever even half a dozen members could be collected together; those few would meet with pleasure and

instruction to themselves, and eventual advantage to the interests of the State.

Of late many provincial associations have come forward into favourable notice. In France, a very distinguished Provincial Society existed at Arceuil so long ago, if we err not in our date, as 1806. It was formed by Berthollet, and consisted but of nine members, among whom we find the names of Laplace, Humboldt and Decandolle. In England, the illustrious Jenner was the founder, and of course a very eminent member, of a Medical and Scientific Provincial Society, which boasted of, we think, but seven members. Their proceedings, however, were as valuable to them as though they had been a hundred. Good fellowship and kindly intercourse were promoted by their meetings; and each member who wrote a paper, was improved by his own researches, while he attempted to improve others. Their papers too, if we mistake not, for we write merely from memory, were published in some of the scientific journals of the day, and thus the expence of publishing was saved to the Society.

We have brought forward these instances of Provincial Societies in order to shew that large numbers are not necessary to success, or even to great distinction; and to support our views of the propriety of the step taken by the Native Medical Practitioners at Barrackpore and Dum-Dum, in forming Provincial Societies of their own. In such Institutions discussion is the one great point. If no very lucid ideas upon the subject discussed are brought forward at the time, yet it sets men a-thinking; it shews them their own ignorance at any rate, and most probably makes them seek its remedy. In all Societies, however small, this point may be attained. It is not to be expected, nor is it to be wished, that seven or eight men can write one or more papers for every night of their meeting together; but they may before hand arrange subjects for discussion, when the mutual interchange of ideas cannot fail to be productive of much good. As to the papers that are written, and after discussion thought worthy of publication; our pages shall always be open for their reception, should they come up to the necessary standard.

We have not quite made up our minds as to the question of Europeans joining with Native Medical Practitioners in the formation of Provincial Medical Societies. At present we are inclined to think favourably of such a junction, although perhaps it might be objected that their presence would occasion restraint. It would, we should imagine, make Europeans better acquainted with the opinions and talents of the Native Practitioners, and more conversant with Native Medical practice, than otherwise they could ever hope to become: while their greater knowledge of details would make them valuable auxiliaries in many matters which would come before them. It should also be remembered that the European Members would thus be enabled to become acquainted with each other's sentiments upon professional topics, to the great advantage of themselves and their patients. As to offices, they could easily be divided, equally between the European and Native Members.

There may be other objections, however, to this union, which might be found insuperable on trial; but till the trial is made we are not disposed to think there are.

The difference of rank is, in our opinion no objection. "Science is of no country," was the indignant exclamation of one of the most talented of our profession, in our day; we will extend the principle—Science is of no rank.

MEDICAL INTELLIGENCE.

General Orders relating to the Medical Service.

June 19th.—No. 130 of 1834.—The Honorable the Vice President in Council is pleased to direct, that the following Paragraph of a Letter No. 108, from the Honorable the Court of Directors, in the Military

Department, under date the 27th November 1833, be published in General Orders:

"Para. 3. We have granted Surgeon A. Henderson, of your Establishment, another year's leave of absence."

Assistant Surgeon G. N. Cheek, attached to the Civil Station of Burdwan, has obtained leave of absence, in the Judicial Department, under date the 16th instant, for three months, on private affairs. Mr. Cheek is not to quit Burdwan till relieved by the Medical Officer who may be appointed to act for him during his absence from the Station.

26th.—Assistant Surgeon F. H. Brett is removed from his situation of Civil Assistant Surgeon of Moradabad, and placed at the disposal of His Excellency the Commander in Chief.

July 3d.—The undermentioned Gentleman is admitted to the Service, in conformity with his Appointment by the Honorable the Court of Directors, as an Assistant Surgeon, on this Establishment, leaving the date of his Commission for future adjustment:

William Dunbar, M. D.—Date of arrival at Fort William, 27th June, 1834.

Assistant Surgeon C. Macintyre, attached to the Civil Station of Akyab, in Arracan, to proceed to Malacca and China, for nine months.

The services of Assistant Surgeon Henry Mark Green being no longer required with the Sunderbund Commission, he is placed at the disposal of the Major General in Command of the Forces.

The services of Native Doctor Chedi Ghir not being required with the City Dispensary of Moradabad, he is placed at the disposal of the Major General in Command of the Forces.

No. 136 of 1834.—The Honorable the Vice President in Council is pleased to direct, that the following Paragraph of a Letter No. 7, from the Hon'ble the Court of Directors, in the Military Department, under date the 5th February, 1834, be published in General Orders:

"Para. 2. We have permitted Mr. D. Brown Wardlaw, late an Assistant Surgeon on your Establishment, to retire from the Service on Lord Clive's Fund: His retirement takes effect from the 16th December 1831."

10th.—*Letter No.* 8, *dated* 19*th February* 1834.—"The undermentioned Officer, belonging to your Establishment, has been permitted to remain in this Country for the further period stated against his name:

Surgeon W. F. Cumming until September next."

The Vice President in Council is pleased to make the following Appointments:

Assistant Surgeon Thomas Russell, to attend on the Lord Bishop of Calcutta, during the Visitation about to be undertaken by His Lordship.

Assistant Surgeon William Stevenson, Senior, attached to the Civil Station of Cuttack, to the Medical duties of the Settlement of Malacca, vice Assistant Surgeon Boswell proceeded to Europe.

Assistant Surgeon Charles Wray Fuller to Officiate as Civil Assistant Surgeon at Kishnaghur, during the absence on leave of Assistant Surgeon J. Barker, or until further Orders.

Assistant Surgeon James Anderson, M.D., to Officiate as Civil Assistant Surgeon at Bheerboom, during the absence of Assistant Surgeon Fuller, or until further Orders.

Surgeon William Grime, of the Medical Department, is permitted to proceed to the Cape of Good Hope, on Medical Certificate, for two years.

The leave of absence granted to Assistant Surgeon C. Macintyre, attached to the Civil Station of Akyab, in Arracan, in General Orders No. 135, dated the 3d instant, to proceed to Malacca and China, on Medical Certificate, is commuted to leave to the Cape of Good Hope, for two years, on the same account.

Assistant Apothecary Robert Maycock, attached to the Honorable Company's Dispensary, is placed at the disposal of the Major General in Command of the Forces.

Hospital Apprentice Michael Healy is appointed to Officiate as Assistant Apothecary at the Honorable Company's Dispensary, vice Maycock.

TO CORRESPONDENTS.

The following Communications have been received and shall appear as soon as possible:

On Small Pox at Ava, in December 1834, by Dr. G. T. Bayfield.

Case of Pendulous Tumour of the Abdomen, with a drawing, by Dr. G. Evans.

Case of an Anomalous Affection in a Native Patient, by Dr. Burt, of Furreedpore.

Dr. C. Finch on Calculous Disorders, with cases of Lithotomy.

Dr. Campbell on Native Medical Education.

On the Hill Fever of the Northern Circars, by Dr. Wright.

Cases in the late Chooar Campaign, by Dr. McCosh.

"A Subscriber" has our thanks for the article he has favoured us with: but we regret that we cannot comply with his request to publish it.

Dr. Wise on the Vitality of the Blood; and Dr. Campbell on some curious effects of Mercury, in our next.

We have received a portion of the Sulphate of Rohunna, from Mr. Piddington, which may be seen, on application for that purpose.

lith. of J.B. Tassin

Mr Evans' Case

THE INDIA

JOURNAL OF MEDICAL SCIENCE.

VOL. I.] SEPTEMBER 1, 1834. [No. IX.

Original Communications.

CASE OF CONGENITAL VENTRAL HERNIA.

By G. Evans, Esq.

A singular case of Hernia of the stomach and small intestines having lately fallen under my observation, I beg to hand you a rough sketch of the patient as she was presented to me, accompanied by a description of the external tumour, and the few remarks which I have been led to make.

The subject of this extraordinary malformation, I have reason to believe, has been seen by most of the resident Practitioners of Calcutta, but as the case may not have excited the attention it deserves (as being one of the rarer species of Hernia, the existence of which, from its unfrequent occurrence, might almost be doubted) you may probably deem it worthy of insertion in the pages of your journal. The patient is a female native child, about five and a half years of age, whose external habitus in every other respect appears perfectly natural.

The appendage or abdominal sac, when distended, is of a lengthened ovate, somewhat irregular form, about six inches long and four broad: it occupies the medial site of the body; commences at a hollow in the lower part of the chest, about two inches below the junction of the collar bones, and, continuing, depends till it comes on a line with the bones of the pubis. The tumour is perfectly soft, flexible and smooth; the integumental part is much attenuated, assuming, as far as size and situation go, the appearance of the pendulous bag of the adjutant bird; on applying the taxis in the erect position the contents are reducible into the cavity of the abdomen: but it is not easy to distinguish what part of the viscera protrudes into the sac. This however is rendered more obvious by placing the child in the recumbent posture when the stomach returns, by the force of its own gravity, into the cavity of the abdomen, leaving the small intestines clearly distinguishable to the touch: the eye can also detect their convolutions through the thin and loosened integuments upon which is seen the cicatrix of the umbilicus. By now seeking for the limits of the sac, the finger can accurately trace the tense and well defined edge of the aponeurotic expansion of the abdominal muscles round to the attachment to the ribs: but as the space between the recti muscles is very considerable, (full three inches) it is obvious that they must, in conjunction with the other abdominal muscles, act but as very imperfect supporters to the viscera, a still further part of which are consequently liable to expulsion at any future period. I am not decided in my opinion, but from the high situation of the tumour, it may reasonably be inferred that the stomach is forced through the diaphragm and into the chest, before it passes through the external opening, and this idea would seem to be strengthened by the statement of the grandmother who relates that the original defect and protrusion were but small and high up at the time of the child's birth: the increase having since gradually taken place downwards, and more particularly within the two or three last years.

As a proof that the stomach is misplaced, as well as the intestines, it is only necessary to state, that the tumour (at other times flaccid and comparatively inconsiderable,) becomes much distended after taking food, and at this period pressure is productive of uneasiness — occasioning, no doubt, that sympathetic irritation of the viscus, that ordinarily accompanies protrusions of any of the viseeræ from their natural position.

There is one peculiarity in this case which I cannot pass over unnoticed, but upon which I can only offer a conjecture. It is a strong pulsatory movement, situated in the triangular chasm left by the defective sternum immediately above, but unconnected with the tumour. To the touch, it appears, a vessel of considerable size,— but whether it is the vena cava inferior, through which the action of the heart is made manifest, or a part of the right

auricle itself, it is difficult to say. The pulsations are strong and vibratory, but not irregular in their movements,—and the vessel or auricle (whichever it may be,) seems to feel the full force of the heart's impulse. To a spectator, the sight is painfully disagreeable, as the apparent labourings of the vessel (which is very superficial,) would seem momentarily to threaten rupture and immediate destruction of the patient. The above pulsation, and that of the wrist, are synchronous, each beating 104, during the minute.

Having described the external character of the tumour, and stated as far as facts would warrant the conclusion,—what I conceive to be its contents; I have little to offer, in a practical point of view, further than that it must be obvious, that the defect admits of no remedy, for pressure, the only justifiable expedient that could safely be adopted, however well applied even by the best constructed truss or bandage, would be inadequate to the end desired in this or any other case where the communication is so free and extensive,—not to say that interference of any kind would be wholly unwarrantable, while the sanatory functions proceed undisturbed, and the chance of strangulation may be said barely to exist.

CAMPBELL ON NATIVE MEDICAL EDUCATION.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Sirs,—It is the avowed purpose of your Journal, to assist in diffusing Medical intelligence in general, and that of India in particular, I need not then doubt your willingness to lend its aid, to a great work now in agitation, "Native Medical Education." The rulers of India are now directing their good intentions, and the energies of the Empire, to the regeneration of her people, by means of spreading far and wide, the blessings of general knowledge, as a part of this great plan, the design of propagating the Medical knowledge and Surgical skill of Europe throughout British India, and of turning the same to practical and useful account, is most prominent. It behoves all who feel an interest in the good work to contribute such information as may assist in enabling the "executive powers" to acquire the requisite knowledge for setting agoing this mighty engine. I therefore tender for their use, the recital of a recent occurrence which has come within my observation, with a hope that others who have large stores of experience in the character of our Native fellow subjects, may be induced to tender the results of the same, as they may bear upon this matter—and that all who have a mind may draw conclusions from such a mass of experience as could in the above manner be in a short time accumulated. My instance displays an unaecountable want of confidence in our Medical skill, and is as follows—

Pursand Singh, Native Doctor of this Residency, regularly educated at the Calcutta school, and holding its diploma, arrived in Nipal from the plains, in Mareh last, affected with chancre and bubo. The lameness from the latter attracted my attention, when I asked if he had received any injury, he said with great gravity, "no, I have merely got a swelling in the groin, *brought on by the laborious exertion required in climbing the hills*, for you know," he continued, "that buboes are often brought on by severe exercise." I acquiesced, and he looked well pleased at having had an opportunity of displaying his school learning anent sympathetic buboes, and at having humbugged his new master.

I hinted at the folly of his concealing from me any ailment of a delicate nature he might be affected with, and advised him to trust his secret to me, as well as the treatment of his case, which I told him I had little doubt was one of venereal. He became highly incensed at this, and declared "he was not a man of such loose habits as I suspected, and hoped I would not again hurt his feelings." I ordered leeches for his bubo with salts and rest. A few days after this I found his breath strongly mercurial, and in familiar phrase, "I smelt a rat." I ordered him to strip, and on inspection, found three large and foul chancres on the glans penis. He fell on his knees and wept, in the usual Native fashion. I prohibited his taking mercury, put him under treatment, and in about twenty days his chancres were healed; his mouth, however, was still sore, and his teeth loose—the consequence he confessed of his own treatment, and of a severe salivation induced at Dinapoor by fumigations, prescribed by a sipahee of his corps at that station, for the removal of chancres.

This is instance the first of the amount of confidence in English skill, shewn by a pupil of the Calcutta school.

About the beginning of last month, the same man again got venereal sores, which circumstance he concealed from *me* until sloughing of the penis came on, I then found his system still full of the Dinapoor mercury, a mercurial eruption on his face and breast, severe pain in all the long

bones, and two sores in the throat, half of the glans penis was gone, and the penis itself greatly swollen and painful, the ulcerated surface blue round the edges, and highly irritable looking. Again he had been taking the *cursed Calomel*, and it was clear that he was labouring under a mercurial fever, I purged him, enjoined rest, applied opiate poultice and such other means, as I deemed best suited for the case. The swelling and pain of the penis subsided, the feverishness went off, and the ulcerative surface of the glans became healthy looking. I was glad, and hoped well for him—when he asked me to grant him a favour, as essential to his peace of mind. It was, he said, to allow him to leave off taking my medicines, and to treat himself with a batch of medicaments just received from an Hakeem (Hindoostanee) at Dinapoor, by Dak Bhangy. I did my best to dissuade him from the step, but "a wilfu man maun hae his way," and so he had his friend's physic. I continued to visit him in hopes of his seeing the "errors of his way" and to watch the effect of his treatment. In a few days his local applications brought on swelling and pain in the penis, and the old angry state of the ulcerated surface, and the pills he took (mercury again) brought back the general fever and brown eruption of the breast. I pointed out the certain death he was enduring, and the impossibility of the medicines being suitable ones; for a disease, with the nature of which the man who prescribed them was unacquainted: but all was unavailing, so I dropped persuasion, and told him he might visit another world after his own fashion—be the fault on his own head. Two days after this he sent for me, gave himself up to my care, and I rejoice to say that with good diet —Sarsaparilla—Nitric Acid—such applications as the state of the ulcerated surface indicated, no mercury, and constant rest;—the penis will be saved, as will this man's life. But after a tale, comes the moral, and a painful one it is in this case. No confidence in our boasted skill! This man was born in one of our regiments, followed it, and received with his mother's milk a knowledge of our nation, he was educated in our Medical school of Calcutta, free and for nothing, and all these advantages have been crowned by good and sure pay, along with a responsible situation. It would be well if our zealous countrymen, who devote time and labour to the improvement of the Natives, would look well into the present amount of confidence that exists, in our superior attainments, before they lead rulers to expect much benefit from a more extended sphere, being granted to the service of our Native doctors. And it would be well in them to search for, and finding, to inculcate the observance of such conduct, as most conduces, to give the Natives complete confidence in our medical skill. There must be plenty of experience among our brethren on this head, and surely those who have it, will not withhold it, I have none worth speaking of, the most remarkable instance of want of faith that I know of, I have recorded, and if it is thought too trifling to be listened to, it may still be remembered by people who are at this moment, perhaps inclined to let their imagination, run off with their reason and judgment.

It can scarcely be thought that this man's want of confidence, applied to me personally, for however acute his discernment may have been, there was not at the time he first displayed his want of faith, opportunity, or time for him to judge of my skill; and, besides, he had followed the same plan at Dinapoor when under another medical officer. It is odd that this hopeful son of Esculapius should, while contemning our knowledge, be handsomely furnished with *laudatory chits* from medical and other officers. Doubtless he may one day be a Zillah or Residency Surgeon, unless he be obliged first to declare his "confession of faith," and verily such a declaration would be requisite for the satisfaction of the wives and children of our countrymen, who are doomed, ere long, to be killed and cured by our Native brethren, for bad and imperfect as is our medical skill, it is the best as yet in use, and our countrymen ought to claim the privilege of being treated, at all events, secundum artem. It is very well for medical men to propose the appointment of Natives to responsible medical situations, *they* would not trust their sable friends for the present, but our civil and military friends *must trust* them, and doing so, ought to have the loudest voice in any assembly constituted for the purpose of pronouncing Natives qualified for the performance of independent medical duties.

A. Campbell.

Nipal, June 17th.

CASES OF LITHOTOMY, WITH INTRODUCTORY OBSERVATIONS ON CALCULOUS DISORDERS.

By Cuthbert Finch, M. D.

The numerous cases which have been published in the late Vols. of the Medical and Physical Society of Calcutta, by Medical Officers of this Establishment, have deprived lithotomy in Natives of any

claim to interest, it might derive from novelty, but numerous though they be, I am not aware that they have yet deprived it of other claims to our consideration, and, in as far as lithotomy in Natives, has but lately obtained that share of attraction which its importance and the frequency of the occasions requiring its demand, I have thought the publication of the following cases in your Journal might not prove superfluous or uninteresting.

To the want of a medium of communication among Medical officers, now happily removed by the establishment of a Society and Journal, must partly be attributed the great indifference shewn to the subject of calculous diseases in the Natives of India, nor does it appear that the operation of lithotomy, until very lately, was undertaken by European Surgeons, and partly to a want of confidence among the Natives, (the consequence of this indifference) which deterred them more than their prejudices from seeking relief from European lithotomists—and left them to the casual aid of Native operators, or to linger out, which was generally the case, a wretched existence.

The recent attention bestowed on this subject has determined the frequency of calculous complaints in our Native subjects, and corrected the erroneous impressions till lately entertained in Europe regarding the immunity enjoyed by the Natives of all warm climates from these disorders, and which were the more easily received from the known vicarious action of the skin and kidneys; unfortunately, for the Natives of Hindoostan, no such exemption is given to them, notwithstanding their temperate and abstemious habits.

The observations already collected have established, that the formation of calculous concretions in Natives, is subject to the same laws as in Europeans, and the identity of their composition. (See Twining in vol. 4th of the Transactions of the Medical and Physical Society). Amongst the great number of calculi extracted from Natives and presented to the Medical Society, uric acid was found to be the most common composition which coincides with the results of the examinations of large collections of these concretions in European hospitals and museums.

They have ascertained the same inexplicable peculiarity in the disease in Hindostan, as in Britain and other countries—of its frequency in some districts, and its comparative absence in others—while this form of disease is notoriously more common in the county of Norfolk than in other parts of England, so it would appear to be endemic in the district of Rohilcund, which has furnished a large proportion of cases to Mr. Brett within a very small compass, and on enquiry, I find that the stone is by no means uncommon in the neighbourhood of Bareilly, while we have but few published cases of its prevalence in other districts.

The observations made by Medical officers regarding calculous disorders in the East have not yet thrown any light on the origin of them, or the proximate causes of their formation.

Of the Medical officers who have published cases, Mr. Burnard who has the merit of having first invited attention to this subject, is the only one who has ventured to give an opinion regarding the proximate cause of these depositions. He has followed in the wake of general opinion, and considers their formation dependent on deranged action in the digestive, and assimilating organs, induced by the use of food of difficult digestion; and is inclined to attribute the frequency of calculous complaints among the Natives of India, to the similarity of their principal article of diet (attah) to the indigestable mass called Norfolk Dumpling, the use of which is allowed by Dr. England to be the cause of the great prevalence of these disorders in that county.

The opinion, that a too large admixture of farinaceous food occasions that derangement in the digestive organs favorable to the formation of these depositions has long been entertained, and the greater liability to these concretions of the Natives of the Upper Provinces, who chiefly live upon a wheaten diet, to those of the lower, whose principal food is rice, would seem to afford some support to these views—but as the inhabitants of all the Upper Provinces are not equally subject to this disease, which, from the uniformity of their diet and general habits they would be, we must look for some more satisfactory reasons.

It appears to me that we cannot discard in toto the generally received opinion regarding the influence of climate in the production of calculous disorders.

I have had occasion to remark on its incorrectness, when applied universally to the inhabitants of all warm climates—the remark is too general; had it been confined to those of the countries lying within the tropics, there would be less occasion to dispute its justice, as we have authors, who assert the absence of this form of disease at Madras, &c. &c., and other places either within the tropics, or having a latitude scarcely without them, whence their exemption if not from climate?

Keeping in view the general exemption enjoyed by the Natives of the lower, and the partial only of those of the Upper

Provinces, we must look for this immunity to the influence of some general agent exerted in a greater degree over one class than the other, and of the non-naturals none exert a greater power than climate. May not the Natives of Bengal owe their exemption in common with the Natives of countries lying within the tropics, or having a low latitude, to the less range of temperature of their atmosphere, preserving an equable secretion from the transpiratory surface during the whole year, while the inhabitants of Hindoostan proper, live in a climate, approximating to an European one in partaking of the greater range, and more marked variations of temperature incidental to the change of seasons—in consequence of the greater cold at one season of the year, (to which the Natives of Bengal are not exposed) the cutaneous exhalation must be greatly moderated in the inhabitants of the Upper Provinces, rendering them liable to the effects of insufficient clothing, whether these be exerted primarily on the skin, and sympathetically on the stomach or kidneys, they may eventually tend to the formation of calculous concretions.

Case.—On the 10th April last, Sewa, a Hindoo boy, eight years and a half old, was brought to me for medical aid by his parents, residing in the village of Ghoontea, in the neighbourhood of Bareilly.

The child seemed to be in great distress, and his appearance and exertions to obtain a temporary respite from his sufferings, indicated the source of them. He could not withold his hands an instant from the penis and anus—the prepuce was much elongated and swollen, and the urine passed from him guttatim.

On the introduction of a catheter into the bladder it immediately struck against a calculus.

The father of the child says that he has been suffering from pain and difficulty in voiding his urine since he was two years of age—at which period he passed a copious white sediment with the urine—and for years they have been seeking relief for him in vain.

With the exception of his present complaint the boy has been healthy, and notwithstanding the length of time he has been a sufferer, and the extreme agony he occasionally is subject to, he seems so still, though of slender form.

As soon as I procured a grooved staff made up by the Lohar-Mistree of the regiment, with a scalpel and ball-forceps, I proceeded to the performance of the operation for the extraction of the stone, with the assistance of Mr. Palsgrave, of the 44th Regt. N. I.

The operation differed nothing from the usual procedure of the lateral operation. On the introduction of my finger into the bladder, as a guide to the forceps, I felt two stones; a smaller and a larger, they were severally laid hold of and extracted—the larger came out whole, but on opening the blades of the forceps, after the extraction of the smaller, it was found broken in two fragments, but both within the hold of the instrument.

The boy bore the operation well, and certainly did not lose above an ounce and a half of blood—he had ℈ij of laudanum before and ℈i after the operation.

The stones were of unequal size—the larger of the size and appearance of a walnut—the smaller had those of a French bean, and had evidently been part of the larger—as there was, on one side of the latter, the appearance as if a section had been made, and to which one side of the smaller calculus fitted—these surfaces were smooth.

The larger stone is composed of a nucleus of lithic acid, and exterior shell of triple phosphate, weight 200 grains. The composition of the smaller is triple phosphate—its weight 30 grains.

The operation was performed on the 1st May, and my little patient had fever on the 2d, 3d, 4th, and 5th, and then an interval of some days of apyrexia; a return of fever on the 9th, 10th, 11th, 12th, 13th, 14th and 15th, which much retarded his recovery—the urine first came by the urethra on the 3d, but afterwards, and till the 14th, by the wound; on the 15th it resumed permanently its natural channel; the wound daily filled up after that date, and he was discharged from hospital weak, but otherwise well, exactly three weeks after the operation.

Case.—From the same village, Kitree, a Hindoo child of the same age as the last patient, and of Kisāān caste, was brought to me a few days after the latter had returned to his house.

This child had the usual symptoms, attendant on the presence of a stone in the bladder, as pain on micturition, and especially on the ejectment of the last drops of urine—but not in a great degree—his appetite was good, his spirits lively, his sleep undisturbed—he was a fine healthy-looking child, and readily submitted to an examination, which put beyond doubt, the presence of a calculus in the bladder.

His parents, who follow the occupation of tāāt-making, (coarse canvas?) say that he has been subject to the same symptoms since he was five years old, when they first observed his urine to be red, and the boy to run about the village before he could

succeed in voiding his urine—when, at any time, he suffered much, they administered to him sherbet made of a cold infusion of wheat and sugar, with temporary relief.

I operated on him on the 4th June in the same manner as mentioned in the preceding case with the scalpel and curved staff, nothing occurred during the operation worthy of recording, except-that on endeavouring to introduce my finger into the bladder, I found the incision rather small, which rendered it necessary to enlarge it with the blunt pointed bistoury—the forceps was then introduced with facility and a small stone extracted—there was even less blood lost than in the former operation.

The calculus has the size and form of a mulberry—its surface rough and colour deep red—weight 61 grains—composition oxalate of lime.

The little fellow had much constitutional disturbance, quick pulse averaging 120, white tongue, thirst and heat of surface for some days after the operation—but no complaint of pain either in the abdomen or wound—daily doses of laxatives, quiet, and low diet, removed these signs of irritation, and he speedily convalesced. The urine came by the urethra on the 5th, the next day to that of the operation, and afterwards entirely by the wound till the 9th, when part was discharged by the natural and part by the artificial passages—on the 13th, none was passed by the wound which had nearly filled up by the 14th, and on the 17th cicatrised, he was sent home cured on the 18th—14 days after the operation.

Case.—Jokee, 9 years old, son of Bugie Dobe, resident in the village of Fyznuggur, near Barielly, was brought to me on the 23d June last, has been subject to pain in voiding his urine since he was five years of age, which has gradually increased to a distressing degree and to have materially affected his general health. He is an extremely emaciated and small child, and his appearance certainly does not indicate his age to be above half that to which he is stated to have attained. He is afflicted with the symptoms attendant on the pressure of urinary calculi in a severe form, accompanied with prolapsus ani.

As the poor child's sufferings seemed to be great, I determined to endeavour to relieve him without loss of time; notwithstanding the heat of the weather, the thermometer standing at 93° in a bungalow, shut up, and must have been considerably higher in a native hospital from which it is impossible to exclude the hot wind—this I, however, took advantage of by a tatty.

I operated on him on the 26th, the fourth day after his admission into hospital, having had him put into the warm bath twice a day during the preceding days, and anodyne draughts given him each night.

The operation was similar to the last. Previous to withdrawing the staff to obviate the necessity of re-introducing it, or having recourse to the bistoury as in my last operation, I satisfied myself of the length of the incision into the bladder by feeling the extent of the staff laid bare, and conceiving it too small for the size of the stone which had been ascertained the day before by an examination per anum, I enlarged it with the scalpel and then withdrew the staff.

After having readily caught hold of the calculus, I found some difficulty in withdrawing it, coinciding with Mr. Palsgrave that the obstruction might probably be owing to my having hold of the stone in its longer axis, I disengaged it from the blades of the forceps and laid hold of it in its shorter diameter, when the facility of its extraction proved our surmise to be correct. He lost but little blood during the operation.

The length of the longer axis of the calculus is $1\frac{3}{4}$ inches, and its shorter is 1 inch, its weight 256 grains—composition a triple phosphate, and colour white—there was but one stone.

After the operation the boy slept much—his pulse rose to 140, and his bowels became sluggish—he continued drowsy that and the succeeding day, and seemed to dislike much being disturbed even to take food, of which he ate very little. On the 3d day his tongue, which had remained clean and moist, notwithstanding his thirst and quickness of pulse, became covered with apthæ, and his bowels suddenly very open, and the motions slimy.

At this date, 7th July, ten days after the operation, the drowsiness is less, though still upon him—he has more inclination for food—the tongue is quite free from apthæ, moist and clean—the pulse averaging 100, and not weak — the stools frequent and slimy.

The wound has remained gaping since the day of operation, and as yet there is no sign of inflammatory action around its edges.

The urine has not once come by the natural passage, and not readily by the wound, as unless he forcibly contracts the bladder or the abdomen is pressed upon by the hand, the urine remains in its natural vehicle.

As he complained much of griping over the site of the transverse arch of the colon, a blister was put on—he had laxatives, Magnesia, Oil and Rhubarb on the appearance on the apthæ—and latterly astrin-

gents as the Mist. Crctæ., P. Cretæ. C., and Tinct. Opii.—the latter by injection and in the form of anodyne draughts, with the effect of restraining but not removing the diarrhœa. The griping has ceased.

He has become attenuated to a mere skeleton, and I fear, there is but small chance of his recovery.

Since the appearance of the diarrhœa, his father says, he has been frequently affected in like manner before, but he never thought of mentioning it as he concluded it was a natural consequence of the pressure of the calculus, otherwise I might have paused before undertaking the operation, which was the only means, however, of affording him any chance of relief from the distressing state in which he was brought to me.

WISE ON THE VITALITY OF THE BLOOD.—No. IV.

Section III.—*Sthenic changes of the Blood in Capillary Vessels.*

Capillary vessels, or the minute terminations of arteries and commencement of veins, are more slender than hairs, and can only be examined with the assistance of the microscope; by which they appear soft, thin, and transparent. As the force, with which the blood is sent from the heart, is nearly spent before it reaches these slender terminations, it is assisted in its course by their elasticity and irritability, as it slowly flows through their numerous divisions and anastamosing branches. This minute stream stimulates the capillary vessels to contraction, and thus assists the circulation; and the blood comes into close contact with the parietes of the vessels, where it is more under the nervous influence, and where its contents undergo important vital changes. When these capillary vessels are irritated by the direct application of a local stimulant, such as heat, or through the nervous system as in blushing, a determination of blood to the part follows. By this beautiful resource of nature the action of one part of the capillaries may be increased, without affecting the general circulation, and by this action, on certain classes of capillarics, it is that many remedies act so beneficially in removing diseases. Such an effect is owing to the determination of blood to the part, and the consequent increase of its functions, as is exemplified in the action of diuretics, &c.

The difficulty and importance of distinguishing the proximate cause of the symptoms, produced by a considerable irritation applied to a series of these minute vessels, has induced me:—

To consider the sense in which the word proximate ought to be used; the reasons for supposing a consolidation of blood to be the proximate cause of inflammation; and the manner in which it explains its symptoms, and terminations.

1st.—*The proximate cause of inflammation.* By disease, is meant an assemblage of symptoms, or the irregularity, difficulty, or pain in any function of an organ; and as these have a sympathy with others, which may be weak or predisposed to derangement, it is necessary to separate these two sets of symptoms before we can distinguish the proximate cause of the disease. This difficulty is increased by the rapidity with which these complicated symptoms appear after the proximate cause, and the modifications to which they are individually liable. In some cases ophthalmia produces no affect upon the system, but in others fever occurs; and in some the brain and nervous system are affected. In this case the cause is that of the local inflammation—which acted as a proximate cause in producing fever, and the affection of the head. Hence our first object, unless in cases where other very urgent symptoms are present, is to attack the proximate cause of the primary affection. Thus in dentition, from the inflamed state of the gums, which is a part not very sensible in health, we have often nervous symptomatic fever, pain, and derangement of the bowels, convulsions, &c., produced by the irritation. When the gums are freely divided at an early stage of the disease, the other symptoms disappear; but, if allowed to go on for some time, the secondary become a primary affection. In consequence of this complicated nature of disease a proximate cause is said not to be admissible in strict pathological reasoning; still in a practical point of view, it is of great importance to distinguish it, as there is invariably a circumstance or cause for the occurrence of other symptoms in every disease, which if removed, the type and force of the disease is broken. Inflammatory diseases always exhibit certain symptoms, and are followed by effects, which are modified by individual circumstances; as the tissue affected, &c. That primary and invariable cause, which is always followed by the symptoms of inflammation, which can always be produced by certain causes deserve to be called its *proximate cause;* or that cause which produces the characteristic symptoms when present, and when removed they disappear.

The proximate cause of inflammation will be found in the smaller vessels as they are principally, and often solely affected; which is at first confined to one spot, from which it gradually extends to the neighbouring parts. The extent to which such

vessels are affected will vary with the cause and constitution, &c. of the person. This local action of inflammation is proved by more blood being sent to the part, and by the hardness and throbbing of the artery supplying the affected part. Thus, when a finger is affected with whitlow the radial artery feels firmer and harder, than the artery of the opposite side. In like manner from repeated examination, I find that the blood removed from the neighbourhood of a highly inflamed part contains more crassamentum, of a firm consistence, than that removed from a distant part of the body; and when the system is affected, produces symptomatic fever, when a like change is found to have taken place in the general mass of the blood, as indicated by the appearance of the buffy coat.

By such an irritation, applied to the fibres of the vessels affected, they act on their contents, the blood becomes of a more florid colour, and of a more fluid consistence so that the homogeneous blood is propelled onwards with more force, and the red part conveyed further and in great quantities along the minute arteries of the part, which, acting on the vitality of the blood, produces a *consolidation* of the contents of the vessels affected.

When this increased local vitality of the blood is considerable, or when the part is highly sensible, the heart and general vascular system participate in the increased local action; and the degree of severity of this constitutional effect will vary with the extent, degree, and susceptibility of the system, and of the part affected, its importance to the system, its nature, and the constitution of the person. Thus the finger may be inflamed without the system participating; but, if the sensible part of the nail be so affected, symptomatic fever is produced. In these cases the general effect is caused by a higher susceptibility of the part.

2nd—*Facts in favor of the opinion that consolidation of blood in capillary vessels is the proximate cause of inflammation.*

As I have already traced the effects of irritation in large vessels, and from the above remarks on the functions of those of a small size, in which morbid changes are examined with greater difficulty, I shall now consider the reasons that lead me to believe that the effect of severe irritation on capillaries is the same, as that produced in large vessels. There being only a difference in the two classes of vessels, from varieties in these vital functions; and the slowness of the circulation, and number of anastamosing branches which render capillaries more liable to have their contents *consolidated* than the trunks of vessels. Such a similarity of effect by the application of irritants will be more readily allowed, when it is considered that the anastamosing extremities which form capillaries are the continuation of the small arteries and veins; from which they receive and evacuate the same fluid after it has performed its important offices in these vessels.

The vital powers of capillaries may thus be locally raised or lowered according to the state of circulation, while the consistence of the blood remains nearly the same. When still more increased, it assumes new characters, and is no longer the action of health, but of disease. In the first case, there is only a congestion of blood; in the second, the blood consolidates, as we have already seen it do when so irritated in the trunks of vessels.

When the irritation applied to a part is severe, and its effects observed with a microscope, it is found that the arteries, capillaries, and veins of the part enlarge, the blood becomes apparently more dense, flows slower than natural, and at the part where the irritation is most severe, stops altogether. The anastamosing branches of the part enlarge, and become more numerous apparently, so that many of them now convey red-blood, which in their natural state distributed the colourless part. In these collateral branches, the circulation is carried on more quickly, and more blood is sent to the part than in their natural state. The foregoing are the result of observations made with the solar microscope. Those of other enquirers, are equally favourable to what must be considered a theory, a term most generally employed in Medical writings as one of reproach; but in all philosophic enquiry the term theory should be more properly considered as a systematic arrangement of facts in a reasonable order, for their explanation. It has been my intention to employ the term in this sense; and in order to avoid as much as possible the bias of my own peculiar opinions I shall record, in preference, those of authors, who are well known in Medical literature.

"It constantly happened," says Dr. Hastings, "that when inflammation commenced, no globules would be seen" with the microscope "even in the blood of the affected vessels. It was universally converted into a bright homogeneous fluid. So that globules could never be seen in the capillaries of a really inflamed part, much less moving with great velocity."* "How different, says Dr. Wilson Philip, would have been Mr. Hunter's inferences, if instead of

* On inflammation, &c. p. 98.

trusting to the unassisted eye, he had viewed the inflamed vessels through the microscope. He would then have seen the blood moving; and found, that, instead of its passage being quickened in the inflamed vessels, it is uniformly rendered slower, in proportion to the degree of inflammation; and, in the most inflamed parts, stands still altogether."* A late and very accurate enquirer says—"As the blood stagnates in the vessels of the most inflamed part, it gradually concretes into irregular masses, in which the distinction of the globules is no longer perceptible. These changes are seen to go on, in animal's dying, while inflammation exists, even after all movement of blood in other capillaries has ceased."†

The minute size of the capillary vessels renders it difficult to detect their exact state on dissection, when slightly inflamed; but, when extensively, the large capillary vessels, particularly the veins, are found filled with consolidated blood, and extending to the larger branches. This fact is well known to practical anatomists, who find that it is impossible to fill the enlarged capillaries of inflamed parts with injection; which, in their natural state admits it freely. Such inflamed parts are found red after death, and the small branches more numerous and distended, than in their healthy state, with more or less thickening, &c. of the part. These appearances are explained by the vital change which had taken place in the inflamed vessels; by which the blood had become of an uniform solid red mass; which unlike the appearance, from congestion, is not changeable by washing, or other mechanical means, without destroying the vessels in which it is contained.‡

3rd.—*Manner in which a consolidation of blood, as the proximate cause, explains the symptoms and terminations of inflammation.*

The symptoms produced by the application of a certain degree of irritation to capillary vessels, are their increased action, redness, and some degree of tension, and swelling.

(a.) The arteries of an inflamed part are increased in their action, and augmented in size. This produces a *redness* by the congestion of blood in the vessels of the part so that small branches, which naturally only admitted transparent fluid, now allow a passage to the red globules which give the red colour to the part. A well marked example of this is seen in inflammation of the tunica conjunctiva of the eye. Should this increased quantity of blood in a part circulate slowly, and the consolidation taking place principally in veins, the colour will be less florid, as in boils. When the inflammation is acute, and the circulation quicker through the collateral branches, less proportionate changes take place from the florid to the purple colour; by the congestion of blood occurring principally in the smaller arteries and passing to the veins without undergoing the usual change; for the same reason, the colour is florid towards the centre of a phlegmon, and lessens towards its circumference. This is known by the increased flow of more florid blood, when an inflamed part is divided; and has been improperly supposed to be a proof of a relative, and absolute debility of the part; as the mechanical obstruction is produced by the state of the vessels, and their contents.

(b.) Heat of inflamed parts. In consequence of the increased action of the arteries of inflamed parts, from their increased vitality, changes take place in their vital properties; the part becomes of a higher temperature, which varies with the quantity of blood, and the rapidity with which it is circulated in the part. This increased heat does not appear to be so high as the sensation would lead us to suppose, or above that of the blood near the heart (viz. about 99°); and it is rarely so high, as the blood is affected, in its passage through the vessels by the temperature of the surrounding tissue. It is by the increased velocity, and quantity of blood sent to the part, and state of the nerves, that the increased sensation of heat is produced, with that of the vitality of the part, which would diminish, if the blood remained always stagnant in an inflamed part.

(c.) Another consequence of the increased action of the capillary arteries of an inflamed part is to produce *pain*. This is caused by the distended vessels pressing upon the nervous filiments of the part, which are more sensible than in their natural state; and ordinary impressions do not convey distinct, but painful sensations which are greater in proportion to the degree of that impression, and the suddenness with which the capillary vessels were enlarged; which often does not admit of nature accommodating herself to the change. Hence it is more severe in parts naturally endowed with little sensibility as the teeth, fibrous tissue, &c. The *pain*, therefore, in inflamed parts varies in its nature and intensity,

* On the vital functions, p. 276.

† Kalkbrunner in Magendie's Journal for 1828 referred to by Alison in his Outlines, p. 431.

‡ I propose returning to this subject on a future occasion.

according to the rapidity of its invasion, its degree, extent and kind, and the tissue affected; being always greater in the sensible capillary vessels, than in the large branches.

When the part is sensible, and the inflammation acute, with large arteries in the neighbourhood; or when the part is pressed or stretched by the increased secretion, or unyielding nature of the tissue affected, it conveys the pulsation of the enlarged arteries, and produces the *throbbing pain* which indicates active inflammatory action in the part; as in whitlow, when the heart's action is little increased. On this account pain is not felt at first, but as the vessels enlarge, the pulsation becomes evident. For the same reason it is mostly felt at the centre of the inflamed part, and diminishes towards its circumference.

In acute phlegmonous inflammation, when the parts are allowed to swell, the sensibility is not much increased, and the pain is *pungent*.

When the inflammation attacks particular tissues, the pain may be *acute* and *sharp;* which is produced by the stretching of muscular fibres, and membrane. When the pain is *obtuse* and *burning*, there are few muscular fibres in the part affected; as occurs in inflammation of the lungs, &c. A burning pain is likewise felt, when the inflammation is more diffuse; as in erysipelas.

In some rare cases, however, there is little or no pain felt, as in inflammation of the pleura. This latent inflammation usually occurs in persons exhausted by fever, after severe injuries, by the great discharge which occurs; and is explained by the absence of nervous sensibility, which is not naturally acute in such parts.

The redness, heat, and pain, vary in degree and intensity so much, in different cases, as to indicate that they are not essential to inflammation. Experience proves the correctness of this supposition, as they all appear in certain cases of congestion; and the reason is found to be the absence of the proximate cause—the *consolidation* of blood in the vessels. When this has taken place, sudden changes of position of the inflamed part no longer occur; and the symptoms are more permanent, and confined to a smaller circumscribed spot. Where, therefore, with the redness, heat, and pain, consolidation has taken place in the capillary vessels, the effects are concentrated and permanent, and followed by other symptoms—which prove the presence of such consolidated blood, and consequently of inflammation.

(d.) Tumefaction.—For explaining the occurrence of swelling in inflamed parts it must be recollected that some vessels are employed for the nourishment of parts, others for secretion. The functions of both these classes of vessels are deranged when inflamed. The consolidated blood accumulates in the capillary vessels where they are less under the influence of the increased action of the heart, than capillary arteries which act more strongly from their increased vital state, and to overcome the obstruction which the *consolidation* of blood forms to its progress. This augments the quantity, and modifies the quality of the secretion into the cellular tissue, on which the corresponding arteries are distributed, for the purpose of lubricating the surface with moisture. This change in the secretion, like that in its tissue, is produced by a higher state of the vital properties and organic action of capillary vessels. When the constitution is strong, the part vascular, and the cause acute, a large proportion of lymph is secreted, from this increased vitality in the part, and consolidates uniting the surfaces upon which it is secreted and becomes organized. When these vital changes are not carried to too great an extent, it increases the size of the part; and, when to such a degree as to pass this point, so as to become morbid, it circumscribes local diseases, by the effusion of coagulable lymph into the cellular tissue round it.

When less acute, or when the individual is weak, more serum is secreted, as in the first stage of erysipelas, or phlegmonous inflammation when the swelling has at first a soft yielding feel, from the augmented secretion into the cellular tissue, which becomes of a harder consistence, as the vitality of the deposit is increased. When less acute, the serum which naturally lubricates the part is increased in quantity from the diminished absorption, and from the want of coagulation, it feels soft and is more or less diffuse. The degree of the swelling varies with the constitution, the cause, and the tissue affected; which will vary with the natural action of the vessels in the part. When the cellular tissue is loose the accumulation of fluid will be considerable, and unless the inflammation be acute the swelling will be greatest at the most depending part, forming œdema; or when more extensive, dropsy.

When a serous membrane is the part inflamed, a large quantity of serum is effused, and the inflamed vessels are disgorged of a considerable quantity of their contents, which diminishes the inflammatory secretion and only floccula of lymph are found in the fluid effused; forming hydrothorax, after pleuritis; ascitis, after peritonitis; hydrocele, after external injuries, followed by inflam-

mation of the tunica vaginalis testis, &c. In all these cases less serum and more lymph is effused according to the severity of the inflammation—and when long continued and severe, pus is secreted in the part.

In some cases blood is effused into inflamed parts, as from the villous coat of the intestines, and towards the fatal termination of inflammation in the lungs. This variety is produced by the vessels being imperfectly supported by the neighbouring parts, and yielding to the force with which the blood is sent to the part proximid of the consolidated blood; when the tissue of the vessel is softened, and consequently much weakened.

When such a consolidation of the blood has taken place in the capillary vessels of a part, the circulation is impeded; and from being accompanied with an increased vital state of the part, the action of the vessels is increased; which meeting with an obstruction, and being stimulated in an unusual manner, the arteries throb more powerfully to rid themselves of their contents, while the collateral capillary vessels, which are not so affected, enlarge to carry on the circulation in the part.

This state of morbidly increased vitality explains the pain, and appearance of redness and heat, in inflamed parts; while the swelling is produced from the extremities of the arteries being more directly influenced by the action of the heart, and increased vital properties of the arteries; by which their secretion is increased, and contains more coagulable lymph than natural, while the absorbents remain in a state of torpor. Inflammation would, therefore, appear to be a vital effect, although most of its characteristic symptoms are produced by the mechanical obstruction to the vessels, followed by an accumulation of blood which produces the increased heat, and throbbing in the part, with the other local symptoms of inflammation constituting this important class of diseases. Inflammation may be defined, therefore, such an increased vital action of the functions of the circulating system in a part, as may be necessary for its restoration or preservation; which proceeds to such a degree, as to become morbid, by the consolidation of blood in the vessels principally affected. These different symptoms are only degrees of the same effect. If the skin be taken, for an example, we may observe:—

(α) An increased and morbid vitality, or organic sensibility.

(β) Redness of the part, with pain and heat; which continues for a short time, when the cause is slight, and applied momentarily.

(γ) A consolidation of blood, and

(δ) An effusion of coagulable lymph; which, with the increased quantity of blood, produces the swelling in the part. Such morbid changes producing the redness, heat, pain, and swelling.

These phenomena may be always produced, and increased to any degree, by varying the strength and kind of the irritating substance applied, modified by the tissue, and peculiar circumstances of the individual case. The regularity with which they may be produced, is peculiar to inflammation, and is explained by its being an increased developement of the phenomena characterizing organization, which is not according to Hunter "a salutary effort of nature" but a diseased action. It would appear, therefore, that the more vital tissues of capillary vessels are first affected in inflammation; but from the increased vital action of the arteries, and the rapid circulation in them; the capillary veins, in which the blood flows much slower, are more extensively impeded by consolidated blood. In some cases, particularly when produced by an internal cause, it extends to the larger branches, which I have seen in some cases extensively obstructed. It is from this cause that veins are principally affected in inflammation, and it more frequently occurs in the depending parts, where their vascularity is less, and the circulation easily impeded; while parts near the centre of the circulation do not so often develope this peculiar state, and when so affected, more readily take on the most healthy form of inflammation; unless when it attacks important organs, and then their diseased state affects health.

According to the above opinion, the remote cause of this *healthy* form of inflammation may be considered such an increase of the vitality in a part, so as to produce the proximate cause or consolidation of blood, which is followed by the symptoms, that characterize inflammation.

M'COSH'S CASES IN LATE CHOOAR CAMPAIGN.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—Having had the misfortune to lose the Journal of the following cases, and thinking them not altogether worthy of being forgotten, I have taken the opportunity of a leisure hour, to draw them up a second time from memory, and now present them to your laudable Journal.

Case 1*st*.—A Bildar, while engaged in clearing the jungle, was accidentally struck

over the hand with a hatchet by another Bildar, so as to divide the tendons and metacarpal bones of the little and ring fingers, I introduced two or three stitches, extended the hand upon a splint reaching from the elbow to the tip of the fingers, applied adhesive plasters and treated it in other respects as a simple wound, I did not find occasion to take up any arteries. No exfoliation of the broken bones took place. No splinters were discharged, the wound healed kindly, and the man returned in course of time to his duty.

Case 2d.—One morning while accompanying the advance guard on the attack of Luckipore, very closely beset by the enemy discharging their matchlocks and arrows from every patch of jungle ; I heard a report that a Naik had been killed ; on going back to the group of seapoys around the wounded man, I was met by Ensign Stiles, who told me he had been hit too. On examining I found that a bullet had passed under his arm-pit, with such a nicety, as to tear the sleeve and the body of his surtout, without even discolouring the skin, or doing any damage whatever, farther than spoiling his coat.

When I got to the Naik I found him lying writhing on the ground, unable to raise his head, and apparently mortally wounded. The bullet had passed through the very stout buff-belt of his bayonet; penetrated the left breast about a hand's breadth beneath the level of the mamma, and lay lodged distinct and prominent about a hand's breadth beneath the right mamma. Having my dressing case along with me, I made an inscision down upon the bullet, and extracted it upon the spot.

Though one of the ribs where the bullet entered was smashed to powder, the bullet did not appear to have passed direct through the thorax : neither did it appear to have travelled horizontally across under the integument ! for by introducing my little finger into the orifices where it entered, and where it was extracted, I could trace its course to a point below the umbilicus. The man had no spitting of blood to indicate that the lungs were materially injured ; he did not complain of pain in any particular part, but from the great prostration of strength and anxiety of countenance it was evident that some vital organ was injured. When I got into Camp I had him freely bled and gave him a brisk saline draught ; towards the afternoon he complained of great pain over the hypogastric region, and of inability to make water, and told me he was dying ; I made several attempts to introduce the catheter, but could not succeed, the passage at the neck of the bladder was completely obstructed. On withdrawing the catheter it was covered with clots of blood, though I am convinced the blood could not be caused by any violence in the attempt to introduce the catheter.

About three o'clock next morning I was ordered to accompany a Wing of the Regiment in an attack on several villages about five miles from Camp ; I did not return till ten, when I arrived the Naik was dead, and about to be burned ; so I lost the opportunity of an inspection.

Case 3d.—A Sepoy in a pet, took his musket and went out of Camp to shoot himself ; but mistaking his heels for his head, or perhaps not knowing which was uppermost, he fired, and fell, and lay to all appearance dead, at length he began to fancy that he was not altogether killed, and called others to his assistance. When he was brought into hospital I found that the bullet had hit the inside of his left leg, about four inches below the knee, passed through the belly of the gastrocnemius muscle, blown away entirely about two inches of the fibula, and torn asunder all the muscles on the outside of the leg. The tibia was uninjured, and the large vessel seemed to have escaped, for the pulse was regular at the ankle. There was little or no hemorrhage.

Resolved to save the leg, if possible, I extended the laceration freely up to the knee and down to the ankle, thus removing all constriction : gave him a saline draught ; and enveloped the whole in a large poultice.

The lacerated muscles soon sloughed, and healthy granulations followed : several splinters of the fibula were extracted : the space between the two pieces of the fibula was filled by a semi-cartilaginous semi-fibrous substance : and in about two months after, the wound was skinned over. However the leg continued very weak, and the wound was apt to bleed if any weight was placed upon the extremity.

Case 4th.—A poor fellow, a Sepoy, went out alone to a tank within gunshot of the Camp at Doosra, to wash his dishes after dinner. He had scarcely begun when he was struck by two arrows at the same instant, and as he believed from the same bow, (for the Chooars frequently fired two arrows at a time) by the enemy lying in wait in the jungle. He instantly ran for Camp, but fell exhausted before he had got half way. He was carried in to me moribund, with the two arrows still hanging dangling in the wounds. One had gone through the thickest part of the right arm : the other penetrated deep into the left iliac region.

From the appearance of the wound in the side I discovered that the arrow was not

barbed, and this was so far favourable for extraction. My only fears were lest the iron head should separate from the shaft and remain beyond my reach amongst the bowels, for these heads are merely stuck into the pith of a slender reed, frequently without any other fastening whatever, and the least thing in the world separates them, the sole object of the shaft being to carry the iron head to the object, and there to leave it buried in the wound. However I succeeded by a slight dilatation of the integument, in extracting both arrows, without difficulty; though both of the heads were stuck into the pith without any other binding.

But it was all in vain, the man immediately vomited a large quantity of blood and rice, and expired about an hour after.

One of the best methods I have found of extracting a barbed arrow is to introduce a director down upon each barb, so as to get the barb into the groove of the director, and then it may be extracted with comparative ease.

Case 5th.—A Sepoy returned from a *Dour*, with an arrow-head sticking fast into the head of the tibia. Many scientific attempts had been made by the officers to extract it; and several seapoys broke a tooth or two in their attempts; but it would not move.

I took a pair of powerful bone nippers, and taking hold of the sepoy's leg between my knees, soon extracted it, though not without exciting very considerable force. It had penetrated the spongy head of the tibia to the depth of two inches.

Not a drop of blood flowed. I inserted a plug into the wound, ordered the Saturnine lotion, prepared for a smart attack of inflammation—inflammation to a certain extent did ensue, accompanied with slight fever; but these under the application of the usual remedies, subsided, and the limb was as good as ever.

Case 6th.—Same morning, another Sepoy got an arrow in the nape of the neck, in the direction of the junction of the vertebræ with the cranium.

He complained of very severe pain, and thought the arrow head could not have been extracted.

I sounded the puncture with a probe, but could find no indication of any arrow being in the wound.

Next day the man had many symptoms of compression of the brain—pulse very slow—pupils dilated and sluggish; he lay all day in a state of coma, and could with difficulty be roused to give an answer.

On the third day (as near as I can recollect), reaction began to take place. His face became flushed, his eyes red, with restlessness and fever, I had him bled freely, a blister applied to the occiput, and by following up a strictly antiphlogistic treatment, he recovered, the wound in the neck also healed without any symptoms of a foreign body being lodged in it.

Case 7th.—I was called up one night to see a Barber who had cut his throat in a fit of jealousy against his wife. When I saw him he was quite composed and seemed to be suffering no pain, little blood had been lost, and that little was now stopped. No artery of any consequence was cut; not even the superior thyroid so often injured in such attempts at suicide, a short deep cut was inflicted across the trachea, immediately below the cricoid cartilage, dividing the trachea so completely that the two ends were drawn two inches apart and the breath gurgled through the wound, of course he could not utter a single sound: but he was very eloquent, with his fingers, to those who understood him.

After putting a few stitches into the skin, taking care to leave an aperture in the centre by which he might breathe, and raising his head to bring the divided ends of the trachea towards apposition, I left him, with orders to be strictly watched till the morning.

When I went to see him at day light he was dead, he had had no more hemorrhage, had done no violence to the wound, and had died without any one having been aware of it.

There was every reason to believe that the recurrent nerve of the par vagum had been cut, but was that alone enough to cause his death?

Case 8th.—A Garriwan, while strolling a short distance from Camp, was attacked by a Chooar with a sword, and narrowly escaped with his life. He had a deep and wide thrust in front of the sterno-mastoid muscle, in the direction of the internal jugular vein, which bled profusely, a cut over the hand dividing the little finger entirely, and the ring finger all but a piece of skin. The fingers were divided at the middle of the third joint; he had another cut on the other arm about two inches long, upon the olecranon process of the ulna, cutting away the end of the bone with the triceps muscle attached; dividing the ulnar nerve, and laying open the elbow joint, the triceps having no longer any resistance had contracted so much, that the end of the ulna was drawn about three inches up the arm. The pulse at the wrist was regular, and the large vessels were uninjured.

The bleeding from the neck was easily stopped by a compress and a bandage, I dressed the stump of the little finger as a simple wound, and the granulations soon

covered the end of the bone. The ring finger I secured by a few stitches, and extended it upon a splint, as I would have done a fracture. In course of time the heat returned to the cold livid joints, and the union was complete, though he had not acquired the feeling.

I had most difficulty with the elbow. I applied a long splint along the inner side of the arm, from the axilla to the wrist, and having made it fast both above and below the elbow, so as not to have occasion to undo it in dressing the wound, endeavoured by other bandages to bind down the detached end of the ulna to its original position, but I could not effect a junction, a copious discharge (the mucous matter of the joint) issued from the wound so that even the integuments shewed no tendency to heal, the whole extremity became cold, swollen, and anasarcous. After a long time spent in fruitless endeavours to produce a cure the old man and his hackery left Camp, and I have not since heard of him.

Case 9th.—A party of followers were attacked by the enemy, while plundering a sugar kate, in the neighbourhood of Camp, an armed party with a couple of doolies, was instantly despatched to their rescue, and returned with two poor creatures literally cut to pieces, one man had a hand cut off above the wrist, a cut across the forehead laying open the frontal sinuses dividing the base of the nose, and laying open the socket of one of the eyes: the naked orb rolled uninjured in the frightful gash; he had another cut dividing the ear and the mastoid process from their bases, laying open the antrum maxillare, and cutting away the cheek down to the base of the jaw so as to expose the teeth. These parts still lay upon his neck attached by a band of the integuments. He had various other cuts on different parts of the body, which, at this distance of time, I dont remember.

This man withall, was still alive! and the bleeding of the wounds had stanched of its own accord. Even the stump of his arm had ceased to bleed, although neither compression nor ligature had been applied. The coagulation of the blood alone had sufficed, and, as I observed, the motion of the arteries pulsating beneath it, I could not help thinking what a fragile partition was between him and eternity.

Hopeless as this case was, I resolved to give it a fair trial, so I got the dooly placed beneath one of the most umbrageous trees I could find, and with the kind and welcome assistance of two officers, and the Serjeant Major and Quarter Master Serjeant (for there was no Medical officer in camp but myself,) got all his wounds dressed, and the stump amputated below the elbow.

For nearly a fortnight I had hopes of this man's recovery; the ligatures were in the usual time withdrawn, the stump was doing well, and union, by the first intention had, to a certain degree, taken place; but the suppuration from such an extent of surface was immense, and the profuse discharge from the parotid duct being diffused through the whole of the extensive lacerated wound from the tip of the ear to the base of the jaw, prevented all union in that quarter, and ended in mortification and death.

Case 10th.—The other man, a grass-cutter of Lieutenant Hamilton's, was, if possible, still more dreadfully butchered. One of his hands was also cut off above the wrist, and the stump was nearly amputated at the elbow by a second blow: he had a third blow on the shoulder of the same side, penetrating into the joint. His only remaining hand was cleft into two. Besides several other severe slashes, he had a cut across the abdomen, from the umbilicus to the spine, dividing the walls, and cutting through one of the coats of the colon. A great part of the bowels protruded from the wound and lay by his side.

This man also had no hemorrhage when I first saw him, and even seemed less exhausted than his fellow sufferers, I dressed his wounds piece-meal, alternately with those of the other man's, as their urgency required it, thus affording them intervals from pain, and amputated his stump above the elbow.

My chief dependence in treating his side was on stitches about one inch apart: and in raising his shoulders and loins, so as to relax as much as possible the abdominal muscle on that side. I also used adhesive plaster, but found it only of inferior efficacy to the stitches.

With all the inconveniences of constant marching this man's stump healed by the first intention. A great portion of the immense wound in his side healed also by the first intention.

As I expected, the wounded colon gave way, an artificial anus was formed, and the feces were in part discharged from the wound, but the aperture in the intestine adhered to the edge of the opening in the integument, and the two orifices being in apposition, none of the feces was discharged internally.

He still continued to have passage in the natural way.

About three months after his disaster, all his other wounds were healed, and the artificial anus, with an orifice large enough to admit the finger, alone remained. I once tried to cure it by cutting out a similar portion all round the opening, and bringing the raw edges into contact by the twisted

suture, but the man was too fond of running about to be confined any longer to his dooly to allow it to take effect.

I intended attempting it again by the actual cautery, but was prevented from doing so by being ordered to another Camp.

I afterwards saw this man in Midnapore: he was quite lusty, and in good health and spirits, though his body was a good deal bent to one side in consequence of the cicatrix. A small portion of feces occasionally, though not frequently, passed by the wound. I would have operated upon him then; but being only recovering from a jungle fever, I had not strength to perform an operation.

J. M'Cosh.

Gowalparah, July 14, 1834.

HOSPITAL REPORTS.

SUMMARY OF MR. RALEIGH, FOR JULY, 1834.

Congestive Fever.—With July, returned the low congestive fevers, usually prevalent through this and the two succeeding months, the essential and characteristic phenomena of which are nearly similar in each successive season, but, which frequently have some peculiar or predominant symptoms, particularizing the disease of one year from that of another: for instance, in the fever of last autumn, gastric and intestinal inflammation was a very marked and almost invariable feature of the complaint; this has not been the case in the fevers which have come under my care during the present summer, in which the head has apparently been the principal seat of lesion, and the nervous system has consequently suffered a proportionate degree of derangement; few of the cases have observed the *regular* form of "Remittent Fever," they have, for the most part, been continued fever, with exacerbations at given periods, usually towards the evening. In the early stage, the inflammatory indications have commonly run high, with decided determination to the head. If the disease was not subdued or checked at this stage, it passed into a low typhoid condition. In cases proving fatal, the patient usually became comatose, and sunk gradually.

Inspection after death exhibited extensive effusion between the membranes of the brain; the fluid principally accumulated over the hemispheres; particularly at the occiput, and at the base of the skull, and down the spinal canal.

Sudden collapse after a paroxysm was not unfrequent, and showed the necessity of strict adaptation of remedies to immediately prevailing states of the system, particularly with reference to general and local bleeding—which, however beneficial, whilst a state of inflammatory excitement existed, would, probably, if resorted to at too late a period of the disease, or on the decline of a paroxysm, have proved seriously injurious.

When the disease was met at an early period, it was generally overcome by general and local bleeding, a continued, but not over severe action of mercurial purgatives, the application of cold to the shaved head, which usually afforded much comfort, and tended to tranquillize the nervous system, and reduce the temperature of the body, sponging the surface of the body, abstinence, &c. &c. &c.

Where the stage of excitement had passed, and adynamic symptoms prevailed, a combination of calomel and quinine, administered at intervals of about three or four hours, was found to be a valuable remedy; (notwithstanding that it may be considered an unchemical mixture,) the bowels being kept open, either by repeated moderate separate purgatives, or by combining some extract of colocynth with the quinine and calomel; by the latter method however, the quinine appears to be carried off before its good effects can be exerted, which is objectionable. It appears desirable in this stage of fever, particularly, to avoid producing very copious purging, as it generally causes much prostration of strength; a searching purgative which occasions five or six evacuations in the twenty-four hours, and this action being kept up steadily,—will be attended with more satisfactory results, than that which produces fifteen or twenty watery stools, and a corresponding degree of prostration, requiring stimulants for its counteraction. Blisters—sinapisms—and a moderate quantity of nourishment, bring up the list of remedies, commonly employed in the latter stage of congestive fevers.

Inflammatory Fever.—A great number of simple inflammatory cases of fever have been admitted on my side of the hospital during the month, for the cure of which, one general bleeding, — and brisk purging has been sufficient, and frequently the application of a few leeches, or purgatives and saline antimonials alone, have been all that was required.

Intermittent Fever.—The cases of intermittent fever have been numerous, the paroxysms coming on daily, or every other day, and most commonly of a morning. After clearing the alimentary canal, the administration of quinine, has been so effectual, that I cannot call to mind any case in which a second paroxysm has

occurred, after commencing the use of that medicine.

HEPATITIS.—The number of cases of inflammation of the liver was unusually large during the first part of July, and the disease very severe in several instances; the insidious progress which this formidable malady occasionally assumes, is well exemplified in the case of F— E—, (to be described). The other cases were well marked by the symptoms common to the complaint, and met by active and appropriate remedies, have recovered, or are in a progressive state.

BOWEL COMPLAINTS—DYSENTERY.—Was not uncommon throughout the month, but the worst cases were received towards the latter part of it; DIARRHŒA frequent;—but not one case of CHOLERA was admitted during the whole of July.

Case 1st of Congestive Fever (abridged)—Mr. W., æt. 40, had been ill of fever on the river between Kedgeree and Calcutta, for six days—on admission into hospital on the 18th July at 6 o'clock, P. M.—he complained of intense headache, occasional vomitting, the belly generally was tense, and painful on pressure, the skin hot and dry, pulse frequent and full, and the tongue thinly coated with yellow mucous.

Bleeding to approaching syncope.

The constant application of cold, to the shaved head.

Calomel—℈i—immediately—*spoon diet.*

19th, A. M.—Head relieved, and febrile symptoms mitigated, there is some tenderness of the abdomen at the umbilicus; passed three dark stools.

viij Leeches to the umbilicus.

Ol. Ricini ℥i.—directly.

Calomel, gr. v.—Pulv. Antim. gr. iij.—at ten and two o'clock.

P. M.—Pulse rather full, 100—but easily compressed, and feeling *hollow* in the stroke, tenderness of belly relieved; three stools.

Calomel and Colocynth āā gr. vi.

Pulv. Antim. gr. iij.—H. S.

20th, A. M.—All local pain relieved, skin still hot, and pulse frequent.

Calomel and Colocynth āā gr. v.

Pulv. Antim. gr. iij.—ter die.

Body to be sponged with vinegar and water.

P. M.—Skin moist and warm, pulse quick and weak, much restlessness.

Calomel and Ext. Hyosciam. āā gr. x—hor. som.

21st, A. M.—Frequent vomitting in the night, skin hot, pulse quick and soft, pain and tenderness at the epigastrium.

viij Leeches to Epigast.

Calomel, ℈i.—directly.

P. M.—Pulse quick and hollow, skin hot, he is restless, and occasionally delirious; two stools.

Calomel, ℈i.—&c.

Tinct. Hyosciam. ℥iss.

Mist. Camph. ℥iss.—H. S.

22nd, A. M.—Had a good night, is quite collected this morning; and appears altogether better, skin still hot, and pulse rather quick, no stool.

Ol. Ricini. ℥vi.—directly.

P. M.—Restless; had 3 or 4 dark fluid stools.

Calomel, gr. x.

Haust. Hyosciam.

23d, A. M.—Skin continues hot and moist—pulse soft, 90—tongue has a dark mucous coating, two fluid stools in the night.

Calomel and Colocynth, āā gr. vi.—at 7 A. M., and repeated at noon.

P. M.—Three stools, dark brown fluid, has a thrilling, rather quick pulse.

Calomel, gr. xij.

P. Antim. gr. iij.—H. S.

24th.—Very drowsy—pulse 90, soft; skin cool and moist—three stools in the night—he is very low.

Calomel, gr. v.

Quininæ, gr. ij.—every 4 hours.

Blister to back of neck.

P. M.—Skin cool—p. soft—occasionally talks incoherently.

25th.—No material change. Remedies continued.

26th, A. M.—Tolerably composed, and rational—skin hotter—two dark stools in the night—watery.

P. Jalapæ C. ℥i.—directly.

P. M.—Three evacuations—he is restless and anxious—quite cool.

Calomel and Ext. Hyosciam. āā. gr. x. H. S.

27th.—Gums very slightly affected by mercury—p. 80—had several dark brown fluid stools in the night—he is very low and dull.

Calomel, gr. iij.

Quininæ Sulph. gr. ij.—every 2 hours—sago or arrow root diet.

28th.—Very low, occasionally delirious, but answers questions correctly—p. thrilling and hollow—skin cool and wet.

Continue Calomel, and Quininæ every 2 hours—beer ℥ij. occasionally.

P. M.—Very restless—pulse quick, vibrating, and hollow.

Tinct. Hyosciam. ℥i.

Mist. Camph. ℥iss.—hor. som.

29th.—Appearance somewhat better.

Continue Medicine as on 28th.

30th.—Skin better this morning, and pulse quicker, three stools in the night—he is very heavy, and disinclined to answer questions.—P. Scammon C. ℈ij.—now.

Calomel, and Quinine, and beer, contd.

P. M.—The powder acted 4 times—skin cool, pulse 84.

31st.—In a half sensible state, with much drowsiness, and disinclination to be roused, pulse 90, thrilling and feeble—several fluid stools.

Continue Medicine, &c.

August 1st.—Continues dull and sullen—p. hollow in the beat, about 90; had 4 brown stools in the night—skin hot and moist—ptyalism freely, but not profusely excited.

Quinine S. gr. iij.—every 4 hours.

Blister over the head.

A small glass of beer occasionally.

P. M.—Talks incoherently when roused, but is very dull; at night became very restless.

Ext. Hyosciam. gr. x.

Pil. Hyd. gr. vi.—hor. som.

2d.—He became tranquil by midnight, and has again fallen into the same dull half comatose state—muttering delirium—picking at the bed clothes—has a dark coated tongue with sordes collecting about the teeth.

P. M.—He continued the medicine through the day, and becoming restless at night, the pills were repeated at bed time.

3rd.—This morning he is quite insensible—stools occasionally pass involuntary—the skin is hot and wet—breathing hurried, and the pulse feeble, quick, and thrilling—squinting—muttering delirium, and picking at the bed clothes; the teeth covered by black sordes, and the tongue thickly coated with dark fur. Died during the day.

Post Mortem examination; exhibited the following morbid appearances.

Extensive effusion of clear fluid, between the arachnoid and pia mater, over the hemispheres of the brain, which from the position in which the body was placed after death, had gravitated towards the occiput; but the principal accumulation was at the base of the brain, particularly in the hollow portion or depressions, of the occipital bone and down the spinal canal, thus occasioning compression of the cerebellum, medulla oblongata, and spinal cord; the collection of fluid at the base of the skull, with what drained out from the spinal canal, amounted to about three ounces, the ventricles also, contained an unusually large quantity of serum; the substance of the brain was in color, and consistence natural.

The viscera of the thorax were healthy.

The liver appeared dark and soft; but with this exception the abdominal viscera, seemed in a natural condition.

Case 2d.—J. M., æt. 35, had been ill of fever *eight* days, for which he had taken some medicine,—on the 5th July—he had headache, pain at the chest, with oppression in breathing, his countenance was anxious, he had a hot skin, and small quick pulse, tongue coated with white mucus.

xij Leeches to Epigastrium.

Calomel gr. xij.

Pulv. Antim. gr. iij.—followed by Pulv. Jalapæ Comp. 3i.

Head shaved and cold applied.

6th.—Symptoms somewhat relieved—skin hot and moist, pulse quick, three stools.

vi Leeches to Epigast.

Pills and Purgative repd.

7th.—Medicine had acted freely, the skin hot and moist, pulse small, frequent, with oppression at precordia, and sense of exhaustion.

Calomel gr. v.

P. Antim. gr. iij—every four hours.

iv Leeches to Epigast.

9th and 10th.—During these days, he appeared to improve; iv leeches were applied to the pit of the stomach on each day, and the same medicine continued.

10th.—Had a severe paroxysm in the night and this morning he is very low, with a small, thrilling, hollow pulse—wet cool skin, faultering voice, and much restlessness, two stools, approaching delirium.

Calomel, gr. iv.

Quininæ Sulph. gr. ij.—every three hours.

Mist. Camph. ℥i—occasionally.

Blister to nape of neck—warm sago, now and then.

P. M.—appears better—only one stool in the day, small quick pulse, and muttering delirium.

Med. Contd.

Calomel, gr. vi.

Ext. Col. Comp. gr. vi. hor. som.

11th.—Pulse slower and not so hollow, intellects more collected, no evacuation from the bowels.

P. Jalap, C.

P. Scammon Comp. āā ℈i.—directly.

Calomel and Quinine contd.

During the ensuing five days, he gradually improved under the same treatment, and by the 18th was convaleseent—the gums became affected by mercury on the 13th.

Case 3*d*.—July 16th.—J. M., æt 30, ill of fever four days, had hot dry skin—frequent pulse, headache, tenderness at epigastrium, &c. exacerbation coming on at evening.

Bleeding from the arm.

Head shaved, and cold applied.

Calomel and Colocynth pills, followed by P. Jalap Comp. 3i.

17th & 18th.—Febrile symptoms abating.

Leeches to the head, and eold application.

Calomel Purgatives.

19th.—The febrile symptoms, continued without intermission, and at evening, and during the carly part of the night, increased, subsiding again towards morning. He has this morning, a wet cool skin, small frequent pulse, some oppression at precordia, restlessness, and sense of faintness—passed three-dark fluid stools in the night.

Calomel gr. iij.

Quininæ S. gr. ij.

Pil. Rhei. Comp. gr. iij. every three hours.

Mist. Camph. ℥iss. now and then—and a little warm sago, &c.

20th.—Improving, three or 4 stools, of dark fecal fluid—skin more natural, and pulse softer, and less frequent; tongue has a dark mucous fur.

Continue Medicine.

He continued to take the same remedies up to the 25th, when he was convalescent, the mouth was slightly affected by mercury.

Case 4th.—J. W., a stout man æt. 26, ill of fever two days—7th July complains of headache, and pain of the ball of the eyes, stomach irritable, with tenderness at precordia, skin hot, P. quick and full, T. white, face flushed.

7 A. M.—Bleeding from the arm, and Leeches to the temples.

Head shaved, and eold applied.

Calomel Purgatives.

P. M.—Symptoms relieved in some degree, but still indicative of high febrile action.

Bleeding repeated, and Mercurial Purgatives.

8th.—Febrile symptoms much abated, head still somewhat painful, bowels frecly purged.

xij Leeches to temples.

Calomel gr. v.

Pulv. Antim. gr. iij.

Ext. Col. Comp. gr. iij. every three hours.

9th.—No local pain—skin still hot, and pulse a little quick, two stools in the night, of dark green colour.

Pulv. Scammon. Comp. ℥i.

P. M.—Four dark stools, skin cooler.

Calomel, gr. vi.

Pulv. Antim. gr. iij. H. S.

10th.—Skin eoolcr and moist, no stool in the night.

Rept. Pulv. Scammon. Comp. ℥i.

Took the Calomel and Antimony at bed time.

11th.—Gums slightly affected, all fever has left him, an occasional purgative eompleted the cure.

ABSCESS OF THE LIVER.—J. E., æt. about 25, a man of stout frame, was received into hospital on the 3d of July, when he stated, that he had laboured under fevcr for several days, on boardship, for the relief of which medicine had been given him. At the time of admission, he had a very foul tongue,—a small pulse, rather quicker than natural, a moist cool skin, *without any local pain;* but he felt weak, and his bowels were costive.

A dose of Calomel and Colocynth Pills at night; followed by P. Jalapæ Comp. ℥i. in the morning were prescribed.

4th.—Bowels acted on, skin a little warm, took a solution of antimony.

6th.—To-day he complains of pain at the lower belly, tenderness on pressure; pulse small and quick.

xx Leeches and fomentations to the abdomen.

Injection Domestic.

Hydrag. Submur. gr. v.

Pulv. Antim. gr. iij. every 4 hours.

7th.—Pain of abdomen much relieved; he passed several stools in the night.

xij Leeches and fomentations to abdomen.

R. Pil Hydrag. gr. v.

Pulv. Ipecac. gr. iij.—ter die—sago 2 cups.

8th.—Bowels rather relaxed, with griping; pulse small and quick; and skin hotter than natural, and very moist.

Ol. Ricini. ℥i.

Cont. Pil. Hydrag. e. Ipecac.

9th.—Stools frequent of fluid, with much tenesmus.

xij Leeches to anus.

Cont. Pill—ter die.

10th.—He is very low and faint; skin suffused with perspiration—sick at stomach, and passed ten brown fluid stools in the night—no local pain.

Hyd. Cum. Cretâ. gr. x.

Pulv. Ipecac. Comp. gr. x.—ter die.

P. M.—Less faint; purging not so frequent.

11th.—Better, only 4 stools in 24 hours, without any uneasiness, p. still quick and skin wet.

Continue Medicine.

12th.—During the night, purging came on again with frequency, and he complains of some pain at the right side, in situation of the liver, which he has not previously experienced—pulse small and quick, skin suffused with perspiration, and he is very low and faint.

Blister over the right side.

R. Pil. Hyd. gr. v.

Ipecac. gr. ij.

G. Opii. gr. ss. every 4 hours.

13th.—In the night he passed only two or three watery stools, but through this day he had frequent evacuations of nearly *pure blood*—he is free from any pain, the side having been relieved by the blister—pulse

small and frequent, extremeties cold, skin suffused.

R. Plumb. Sup. Acet. 3ss.
Opii. gr. iij.
Cold Conjee, H. S. as an injection, 3 times in the day.
R. Plumb. Sup. Acet. gr. iij.
G. Opii. gr. i. ter die.
Sago and wine occasionally.

P. M.—The stools less frequent, of brown fluid, *without blood.*

Continr. Remed. through the night.

14th.—Small rapid pulse, parched mouth, has pain at the back of the right side of the thorax increased on pressing over the liver—his countenance pallid and anxious, passed 8 or 10 stools of brown fluid, free from blood in the night.

Continue Medicine and Injections.

P. M.—Very low—anxious, and restless, with a wet cool skin, and rapid pulse.

Continr. Remed.
R. Tinct. Opii. 3i.
Mist. Camph. ℥iss. H. S.

15th.—Pulse small, rapid, and feeble, skin wet and cool—has hiccup, and his countenance is very unnatural—several brown fluid stools during the night—free from any pain, but very faint and low.

Med. and Inject. contd.
A little sago and wine now and then.
R. Ammon. Carb. ℈i.
Mucil. Acaciæ. ℥i.
Syrup. Simp. ℥i.
Aquæ. ℥v.—two table-spoonsful occasionally.

Died at 2 o'clock in the afternoon.

Post Mortem Examination.—The only intestinal change of structure, or appearance, from natural, was in the mucous coat of the colon, which throughout was of a dark purple colour, but no thickening, or ulceration of this membrane, was detectable; a mere state of vascular congestion existed. The liver appeared large, and along its margin was of a black colour, but this appearance did not extend far below the surface; on raising the liver a protruding yellow coloured portion on the posterior part, marked the seat of an abscess, and on cutting into the substance of the viscus—one large central abscess, containing about a pint of yellow pus, and three small *distinct* ones, each having from two to three ounces of pus in the cavity were exposed; the left lobe also contained two separate abscesses of about the same size as the smaller ones in the right lobe; the peritoneal coat of the liver, over its whole surface, appeared exempt from any signs of having suffered from inflammation, and was perfectly free from adhesions.

Cases.—*Acute inflammation of the liver.*—C. H., a thin man æt. about 35, was admitted into hospital on the evening of the 13th of July, with severe pain in the region of the liver, increased on pressure, movement of the body, or inspiration;—incapability of lying on the left side, &c. he had a frequent, small, hard pulse, white tongue, and his bowels costive.

Bleeding to faintness—and
xij Leeches over the right side.
Calomel and Colocynth pills—Hor. Som.

14th.—Pain severe at the side, two stools at night—P. quick and hard.

Rept. Bleeding to faintness.
R. P. Jalapæ Comp. 3i. now.

P. M.—Pain of side much relieved—B. freely open.

Calomel gr. vj.
Antim. Tart. gr. ss, at six and ten o'clock P. M.

15th.—Blood yesterday drawn, had a buffy coat, he has pain at the side again this morning—Bowels freely open.

Bleeding repeated.
vj Leeches over the liver.
Calomel gr. vj.
Antim. Tart. gr. ss. ter. in die.

16th.—Side nearly free from pain.

viij Leeches over the side.
Continue Calomel et Antim. Tart.

17th.—Complains of pain at the back of the right half of the thorax and side, anteriorly free from tenderness, on pressure—Pulse small, frequent, and soft; tongue coated, bowels not freely acted on.

viij Leeches to the back of the chest on the right side.
P. Jalapæ Comp. 3i.
Continue Cal. et. Antim. ter. die.

28th.—Has still some pain at the back of the thorax, increased on pressing in the chest, or on making a very deep inspiration, bowels open—pulse small, and quick.

Viij Leeches to the back of the chest on right side.
Calomel and Tartar Emetic continued.

19th.—Side free from pain—he is weak, and has a feeble pulse—gums affected by mercury—bowels not open.

Blister over the right hypochondrium.
P. Jalapæ Comp. 3i—now.
Pil. Rhei. Comp. gr. v.—Hor. Som.

20th.—Pain of side entirely relieved—bowels open—ptyalism copious.

Pil. Rhei. Comp. gr. v. Om. Nocte.
Mist. Cathart. ℥iss.—Om. Mane.

He improved up to the 27th, when the side appeared tender on pressure; mouth continuing sore.

Emetic Tartar Ointment was rubbed over the side.

Medicine continued night and morning.

31st.—Bowels relaxed—he has still some sense of heaviness at the right side—but no pain or tenderness on pressure, ptyalism has subsided—Counter irritation kept up.

Hyd. c. Creta gr. v.

Rhei. Pulv. gr. ij.

Pulv. Calumb: gr. x.—ter die.

Aug. 5th.—Had a rigor at 5 o'clock, P. M. yesterday—followed by heat and sweating, after which he became cool, and continues so.

R. Quininæ Sulph. gr. ij.

Pil. Hydrarg. gr. iij.—ter in die.

6th.—Had no return of shivering, but there is occasional pain at the back of the chest on the right side.

Emp. Lyttæ. over the right half of the chest.

Medicine continued.

9th.—No uneasiness of the side since the sixth, nor has he had any return of rigor—bowels regular, and his appearance improved.

Continue Medicine.

15th.—He continues free from side symptoms, and his general health is improving rapidly.

Case 2D.—J. R., a stout man, æt. 30; on 3d July, laboured under acute inflammation of the liver, of which disease the prevailing symptoms were clearly indicative—he was bled from the arm three times during the two first days—and had leeches applied over the side on three subsequent ones, after the bowels had been freely acted on.—Calomel and Tartar Emetic were administered every four hours, until the gums were affected, which took place on the fifth day; when blue Pill and Colocynth were prescribed at night, and a mild purgative in the morning; counter-irritation being sustained over the side by means of Tartar Emetic Ointment.—On the sixth day, the patient was free from side symptoms, and perfectly recovered by the middle of the month.

Chronic Inflammation of the Liver.—J. P., æt. 35, a tall thin sailor, had suffered pain at the liver, increased on pressure, inspiration, or turning of the body, for some weeks past, countenance sallow, P. small, and moderate in frequency, tongue coated—he had taken some medicine, and had had a few leeches applied, previous to his being sent to hospital on the 4th of July.

Six leeches were applied over the liver for six successive days.

And he took blue pill gr. v.

Antimonial Powder gr. iij. every four hours—with a mild purgative every other morning, so as to keep the bowels relaxed—and low diet.

During the succeeding seven days, as the pain very gradually abated:

Four leeches were daily applied, and the medicines continued.

20th.—By this date, he was free from all pain, or tenderness of the side, but experienced a sensation of weight, when lying on the left side—the gums very slightly affected by mercury.

Lunar Caustic Blister over the side.

Mild purgative every morning.

30th.—Quite well, discharged.

Hemoptysis.—Mrs. D ———, a delicate female, æt. about 20 years, stated that she had been subject to pain of her chest, cough, and spitting of blood, during the past three months. On the afternoon of her admission into hospital, being costive, she was ordered a solution of sulphate of magnesia, in inf. of roses, with sulphuric acid.

July 14th, A. M.—The medicine yesterday prescribed acted several times; during the night she has expectorated about ℥ij. of florid blood, mixed with mucus—the cough usually is short, and troublesome, but comes on occasionally in severe fits, the chest is tender on percussion, and pressure at the epigastrium occasions uneasiness, pulse small, slow—skin cool.

viij leeches to the Epigastrium.

R. Plumb. Superacet. gr. ij.

Opii. gr. $\frac{1}{4}$th.—every four hours.

15th.—During last night—she spat scarcely any blood—the expectorated matter being mucous, streaked with blood.

iv Leeches to Epigastm.

Continue Medicine.

16th.—Cough much relieved—very little blood to be observed in the sputa, bowels confined.

P. Jalapæ Comp. ℈ij. now.

iv Leeches to Epigastm.

Continue Medicine every four hours.

17th.—Cough trifling — expectoration entirely mucous, complains of griping and soreness of the mouth.

A Tartar Emetic Plaster over the chest.

Ol. Ricini. ℥vi. directly.

Omit the Lead and Opium.

18th.—Bowels open—little cough and scanty, mucous expectoration.

Inf. Roses and Acid. Sulph. ℥ij.—ter die.

25th.—She continued to improve up to the approach of this morning, when after a sudden fit of coughing, she had a return of spitting of blood—the Epigastrium is again tender on pressure, and the chest feels sore.

iv Leeches to Epigastm.

Plumb. Superacet. gr. ij.

G. Opii. gr. $\frac{1}{4}$ every 4 hours.

Blister over the chest.

26th.—Very little blood brought up during the last twelve hours, bowels not open.

Haust. Purg.

Continue Medicine.

27th.—Improving.

Mild Purgative.

Lead and Opium continued.

28th.—Little cough; the expectoration is still stained with blood—pulse small, rather quick.

Repeat Medicine.

29th.—Expectoration quite free from blood.

August 2d.—Had no return of bleeding from the chest, the cough is much relieved, and the expectoration merely mucous of pale yellow color.

She continued to take the lead and opium, with mild purgatives, up to this date.

Emetic Tartar Plaster over the chest.

Mild laxative every morning.

R. Ext. Hyosciam gr. vi.

Ipecac. p. gr. i. every night.

Lead and Opium omitted.

August 15th.—She continues delicate, but the cough is now very trifling, and there has been no return of the bleeding from the lungs.

Fistula in Ano.—One case of fistula cured by operation.

Accidents.—The only serious accidents admitted under my charge during this month, have been a fractured thigh—a fractured humerus—and a fractured clavicle.

W. Raleigh, *Genl. Hospital.*

Error of the press in No. VIII.—(August number) of the Journal—1st col. page 292—line 38 from the top—for "*projection*"—read *projector.*

In the Review of vol. vii.—part i.—of the "Transactions of the Medical and Physical Society"—some of the typographical errors of that publication have been *copied* into the Journal of Medical Science"—namely—

1st column of page 301 of the Journal—line 5 from the bottom—for "take *a* gentle exercise"—read—take gentle exercise.

Page 301—last line—for "the *sickness* of a protracted confinement"—read—"the *irksomeness* of a protracted confinement."

In the volume of Transactions, there is another misprint which I may perhaps be permitted to notice at this time—at page 136—part i.—vol. vii.—of the "Transactions of the Calcutta Medical and Physical Society"—in the case of Mr. E.—fracture of the femur, line six from the top of the page, for "$1\frac{1}{4}$ of an inch diminution of length"—read "$\frac{1}{4}$" (one quarter) of an inch diminution of length. The Secretary of the Medical and Physical Society has obligingly promised to correct the errors alluded to in the Transactions, when an opportunity offers.

W. R.

TRANSLATION.

VEGETABLE ALKALIES.

Quina and Cinchonia.

(Translated from Berzelius "Traité de Chimie," for the India Journal of Medical Science.)

On account of the facility with which it crystallises cinchonia had been noticed by Duncan, Gomés, Laubert and Pfaff, and considered by them as the active principle of cinchona bark; but the alkaline properties of cinchonia were discovered by Pelletier and Caventou, who made at the same time the discovery of quina. Both these salifiable bases exist in almost all the species of cinchona bark, where they are found in the state of kinates. The pale *(gris)* bark contains most cinchonia, the yellow most quina.

The processes by which these salifiable bases may be extracted differ much. In general, water alone does not wholly exhaust the bark, because it changes the neutral salts it meets with therein into more soluble acid salts, and into basal salts soluble with difficulty. Therefore the cinchona bark used in pharmacy to make infusions and decoctions, retains the greatest part of the salifiable bases. To exhaust the bark of cinchona, one of the following solvents must be made use of.

1. *Alcohol.*—Pelletier and Caventou recommend the preparation of an alcoholic extract of cinchona bark; to treat this extract with largely diluted acid, to dissolve all that is soluble in this acid; to saturate the acid liquor with magnesia; to boil it with an excess of this earth; to filter; to dry the precipitate; and to exhaust it by boiling alcohol.

2. *Diluted acids.*—When we wish to use an acid as a solvent, the process of Henry is preferable to any other. This chemist boils the bark coarsely powdered with eight times its weight of water, containing five per cent. of the weight of the bark, of sulphuric acid. He repeats this treatment with a fresh quantity of acidulated water, filters the liquor, squeezes the residue, and mixes the solutions with quick lime, equal in weight to $\frac{1}{4}$ of the bark employed; he stirs the mixture well, filters the liquor immediately that it shews a reaction like that of alkalies, washes the cal-

careous mass with a small quantity of water, squeezes and dries it, after which he boils it three times with alcohol of the specific gravity of ·836; he then filters the alcohol, mixes it with a little water and distils; the bases then remain in the form of a brown viscous mass, not as yet perfectly pure.

3. *At first an alkali, then an acid.*—The aim of this process is to retain the vegetable alkalies in the bark while the acids, the colouring and extractive matters, the gum, &c. are dissolved with alkaline water. Badollier boils for an hour one pound of bark with six pounds of water, to which he adds, little by little, enough hydrate of potash to give an alkaline taste when the boiling is ended to the liquor. He leaves it to cool, filters, washes the residue with a little water, and presses it. He then treats it with lukewarm water to which he gradually adds small portions of muriatic acid, until after a long maceration the mixture sensibly reddens litmus paper. He then filters the liquor, and to save magnesia, adds to it sulphate of magnesia, and precipitates by an excess of potash. The precipitate having been washed and dried, he treats it with alcohol. The presence of a magnesian salt is not necessary to cause the precipitation; but he adds this salt, because, in performing the first process, he believes he has remarked that the magnesia retains a portion of the colouring matter which does not dissolve with the bases, when he treats the precipitate with alcohol.

Stoltze recommends the following process. He boils one part of bark coarsely powdered, with six times its weight of pure lime water, and when well boiled together (le tout forme une bouillie) allows the mixture to cool, and strains off the liquid. The squeezed mass is then again twice subjected to the same treatment. The bark which he has thus boiled is infused in water, to which a portion, equal to $\frac{1}{16}$ of the bark, of hydrochloric acid sp. g. 1·175 is added; the mixture ought to form a thick decoction, which is then digested for twenty-four hours at a heat not exceeding 50°*, for at a higher temperature the liquor becomes coloured. He filters the solution, washes the residue with acidulated water, concentrates the filtered liquor by evaporating it in a gentle heat, and precipitates by caustic potash; the precipitate consists of a mixture of the two bases.

Quina and Cinchonia obtained by any of these processes, are not perfectly colourless; for cinchona bark possesses a colouring matter which it retains with great obstinacy. To free them from it, they must be dissolved in an acid, and digested with animal charcoal. To deprive them of all colouring matters, the method pursued by Geiger has also been successfully employed. He exhausts the bark of cinchona, by digesting it in water containing one per cent. of hydrochloric acid. The acid liquor is evaporated, until its specific gravity is 1.109, then precipitated by muriate of tin; when it appears only yellow. The liquor is filtered, and the tin precipitated by a current of sulphuretted hydrogen gas, the excess of which is got rid of by evaporation, after which the bases are precipitated by caustic potash. The acetate of lead has been employed, instead of muriate of tin, but not with equal success.

Cassola has proposed a process which differs from all the rest, in as much as it dispenses with alcohol. He boils two pounds of cinchona bark with twelve pounds of water, in which $\frac{3}{4}$ of an ounce of caustic potash has been dissolved; the alkali dissolves the acids, the tannin, the extractive matter, and the resin. He decants the lie, expresses the residue, and washes it till the water passes through colourless. He next boils it for some time with fifteen pounds of water, containing half an ounce of sulphuric acid, and repeats this treatment several times, taking however in each after operation but a dram of acid. The acid liquors are mixed, saturated by finely powdered marble, filtered, evaporated, and separated, by decantation, from the sulphate of lime which is deposited; after which the bases are precipitated by carbonate of potash.

There are several methods of separating the two bases. 1. They are dissolved in spirits of wine, and the solution evaporated to a certain point; when the cinchonia crystallises and the very soluble quina remains along with a very small portion of cinchonia in the solution. 2. They are digested in æther, which dissolves the quina, and leaves the cinchonia. 3. The mixture of the two bases is slightly *super*-saturated with sulphuric acid. It forms super-sulphates with the two bases; but, as the sulphate of quina is but little soluble, it is sufficient to evaporate the liquor to a certain point for it to crystalize, while the very soluble salt of cinchonia, remains in the liquor, mixed with a very small quantity of the salt of quina, which can be separated by precipitating the bases, and treating them as before-mentioned, with æther or alcohol. A pound of cinchona bark rarely gives more than two drams of the bases. Each pound of the pale bark gave to Pelletier and Caventou but $18\frac{1}{2}$ grains, but the red bark yielded 74 grains of cinchonia, and 107 grains of quina.

Quina. To obtain this vegetable alkali the crystallised sulphate is dissolved in

* Centigrade Ther.

water, and precipitated by an alkali. Quina is then deposited in white and curdy (caseiforme) flakes, which are rarely perfectly white when dried. It is very difficult to obtain it in crystals; so much so that it was for a long time believed to be incrystallisable. But Pelletier had shewn that dissolved in alcohol sp. g. 815, and the saturated solution left to itself in a dry place, during the winter, it is deposited in little crystals, the form of which differs from that of crystals of cinchonia. Quina precipitated, caseiforme, and in crystals, is in the state of a hydrate. Gently heated, the hydrate gives up its water to the extent of three or four per cent. of its weight (the weight of one atom of water to one atom of base) and the mass melts into a transparent liquid, which after being congealed is translucid, resiniform, and susceptible, like a resin, of being charged with negative electricity by friction. Melted in a vacuum the hydrate of quina becomes crystalline on solidifying, exhibiting on its surface many crystalline stars, and an equal crystalline fracture. Under water, the melted mass after some time swells up, dilates, and repasses into the state of a hydrate. Quina has an extremely bitter taste, which exactly resembles the peculiar bitterness of the cinchona bark, which appears to owe this taste to the quina it contains. It restores the colour of litmus paper reddened by an acid; and dissolves sufficiently well in water to prevent its being much washed; when operating on a large scale, it is worth while to evaporate the water of the washings, previously acidulated, and to precipitate the quina from the concentrated liquor; 200 parts of boiling water dissolve one of quina. Alcohol dissolves it largely, and after having evaporated the solution by the aid of heat, the quina is deposited under the form of a soft viscous mass. The quina obtained on evaporating the alcoholic solution, from whence the cinchonia is deposited, is often very impure; and to purify it, it must be treated as aforesaid with muriate of tin, or acetate of lead. Quina is also soluble in æther; and, by the aid of heat, in a small proportion in the volatile and fatty oils.

Quina has been analysed by Pelletier and Dumas, who found it composed of 75·00 of carbon, 6·66 of hydrogen, 8·45 of nitrogen, 10·40 of oxygen; a result which reduced to the nearest atomic numbers, gives carbon 30, hydrogen 32, nitrogen 3, and 3 of oxygen. From which the atomic weight of quina is 3058·3. In calculating from the analysis of the neutral sulphate of quina, made by these chemists, how much quina saturates an atom of sulphuric acid, we find that this weight is equal to one atom and a half of base, and the oxygen of this is to that of the acid as 3·2. According to the analysis of Liebig, quina is composed of 75·76 of carbon, 7·52 of hydrogen, 8·11 of nitrogen, 8·61 of oxygen, or of C^{20}, H^{24}, N^2, O^2, a result which gives the atomic weight 2055·538. In seeking to confirm the result by the synthesis of the hydrochlorate, Liebig found that 100 parts of quina absorb 24·1 of hydrochloric acid gas, which points out the number 1900. Liebig attributes this difference to the spongy (boursouflement) state in which he found the hydrochlorate formed, in consequence of which it absorbs as a porous body, an excess of uncombined gas, on which account the solution of the salt was acid, and furnished by distillation an acid product. Liebig then made an analysis of the dry sulphate of quina, by the method pointed out in the article sulphate of morphia.* He found it composed of 10·00 of sulphuric acid, 85·83 of quina, and 4·17 of water, which could not be driven off; this result gives the atomic weight 4300: but as the approximating atomic weight, taken from the synthesis of the hydrochlorate, is only half of the preceding, the sulphate ought to be a basal one, and to contain 2 atoms of quina; according to this hypothesis, we find that the weight of the atom of the quina is 2150, which serves as a confirmation of the analysis.

The Salts of Quina are distinguished by their very strong taste of quina, and the crystallised salts by their pearly lustre. The greater part of them are soluble in water, and some are also soluble in alcohol and æther. The soluble salts are precipitated by the oxalic, tartaric, and gallic acids, and their salts. The infusion of gall nuts precipitates them also. Taking the basis of the calculation of Liebig, we find that the capacity of saturation of quina is 4·96.

Haloid kinic Salts. Hydrochlorate.— It is little soluble, but more so than the neutral sulphate; it crystallises in pearly needles. It completely fuses at a temperature below 100°. According to Winkler, this salt has a great tendency to become resiniform, when prepared by neutralising diluted hydrochloric acid by quina, and especially when it is evaporated at the boiling heat. This chemist states that it is on

* To determine this quantity of water Liebig heated to redness, the sulphate of morphia, along with oxide of copper, and compared the quantity of hydrogen and carbonic acid obtained, to the quantity of these same substances produced from the combustion of morphia in an anhydrous state.

the other hand obtained, in the form of very fine crystals, when we mingle exactly 480 parts of effloresced sulphate of quina, with 139 parts of crystallised muriate of barytes, and that after having added water to this mixture, we digest it for some time at the temperature of 40°, that the decomposition may be complete. The solution, and the water in which the barytic sulphate has been washed, being evaporated till a pellicle is formed, at a heat not exceeding 40°, the salt crystallises on the cooling of the liquor. The solution of this salt mixed with a solution of the deuto-chloride of mercury, gives a double salt which is deposited in white flakes, and enters readily into fusion, when heated, after having filtered.

Hydriodate of Quina.—It is formed at the same time as the Iodate, when we mingle quina and iodine with warm water, the two salts are precipitated on cooling, in the form of a white powder. According to Caillot, the hydriodate of quina forms with the cyanuret and deuto-chloride of mercury, (caséiforme) curdy precipitates, which appear to contain the two salts.

Sulphate of Quina. 1. (*Soussel*) *Subsalt.*—After a proper evaporation it crystallises in spangles (*paillettes*) or in straight, long, slightly flexible needles, with a pearly lustre. It is but little soluble in cold water and æther; very soluble in boiling water and alcohol. Heated, it readily melts, and resembles melted wax; at a higher temperature it takes a beautiful red colour, and finally burns completely away without leaving any residue. The crystals contain 15·254 per cent. of water of crystallisation, which, according to Baup, it parts from when melted. The salt retains then, as Liebig has shewn, 3·54 per cent. of water, equal to 2 atoms. It contains then in all 10 atoms of water, of which 8 are disengaged on melting the salt. Formerly, in accordance with the experience of Liebig, Baup had found that the salt effloresced when exposed to a gentle heat in a dry place; and lost $10\frac{3}{4}$ per cent. of water, equal to 6 atoms.

2*d. Neutral Salt.* It crystallises in colourless transparent square prisms, both ends terminating in a point; it reddens litmus paper, but its taste is not acid. At the temperature of 12° it requires for its solution 11 parts of water; it dissolves readily in diluted, but with difficulty, in anhydrous alcohol. It effloresces in the air, losing according to Baup, 24.66 per cent. of water. It would be very interesting to know if in this case the salt retains equally two atoms of water per atom of sulphuric acid, an experiment which has not yet been made. Sulphate of quina, well dried, has the property of shining in the dark, that is to say, of producing a phosphorescence like the fluor spar when heated to 100° or a little above.

Hyposulphate of Quina.—We prepare it by precipitating a boiling saturated solution of the neutral sulphate of quina, by the hyposulphate of barytes, added a little in excess, filtering the solution while hot, and allowing it to cool; the salt crystallises, and is washed in cold water, in which it is but little soluble.

Nitrate of Quina.—On evaporating its solution to a certain point it forms oleaginous drops, which resemble melted wax. On keeping them for some days under water, these semi-globular pearls are, little by little, changed in appearance, and transformed into groups of brilliant, regular crystals; and sometimes, even a drop forms a single crystal. This phenomenon arises from the circumstance that the salt which is deposited while hot is melted, that it contains no water of crystallisation, and that it regains this little by little and crystallises. It affects, in this case, the form of rectangular prisms, inclined upon their bases, which do not present natural cleavages.

Phosphate of Quina.—It readily crystallises in needles, colourless, transparent, and slightly nacreous, and easily dissolves in water and alcohol.

Arseniate of Quina.—It resembles in every respect the phosphate.

Oxalate of Quina.—We obtain it by precipitating a soluble salt of quina by a neutral oxalate; it is sparingly soluble in cold water, and precipitates under the form of a white powder. Boiling water dissolves it better, and on cooling the liquor it crystallises in needles, having a silky lustre; a boiling saturated solution congeals into a mass on cooling. It is very soluble in alcohol, especially by the aid of heat, and crystallises from the solution when left to cool. With an excess of acid this salt dissolves easily in water, and crystallises in needles.

Tartrate of Quina.—It resembles the preceding, but is more soluble in water.

Acetate of Quina.—It crystallises in fine needles of a silky lustre, sometimes united together in clusters; it is little soluble in cold, but very soluble in boiling water.

Gallate of Quina.—This salt is precipitated in the form of a white powder, when a soluble salt of quina is mixed with a gallate. It is very soluble in hot water, from which it slightly precipitates as the solution cools. It dissolves easily in alcohol, and in an excess of acid. The precipitate formed by the *infusion of gall nuts*, dissolves in boiling acidulated water, and is decomposed by a solution of glue,

which separates the tannin, after which the base is precipitated by an alkali.

Kinate of Quina.—It is deposited by spontaneous evaporation, in white crusts, which are for the most part mammellated, sometimes composed of little needles, losing their transparence in the air, and at others, taking upon their edges a horny appearance. This salt is very soluble in water, turns syrup of violets green, and crystallises with facility in needles, when its solution contains a slight excess of acid.

SELECTIONS.

ON MAMMARY ABSCESS.

By Dr. Beatty, of Dublin.*

The new office which the mammary glands have to perform after parturition, is attended with considerable increase of the circulation. Within certain limits there is no danger, and not much inconvenience; but when the vascular action passes a healthy limit, inflammation and suppuration are the consequence. A breast which has once suppurated is always more liable afterwards to the same accident. The ordinary treatment usually fails to check this inflammation.

"I have been in the habit of combating this affection in a way first communicated to me by my friend the late Mr. Gregory, who employed it with great success in the Coombe Lying-in Hospital. I have found it equally useful in hospital and private practice, and as I am not aware of its being mentioned by any writer, I take this opportunity of doing so. The remedy to which I allude is tartar emetic, whose power of controlling inflammatory affections of the breast would almost lead one to imagine that it exerted a specific action on the mammary gland. On the accession of inflammatory symptoms in the breast, after purging the patient, I administered this medicine in doses of one sixteenth of a grain, repeated every hour, so as to induce slight nausea. It is never my object to cause free vomiting, and if this should occur, I omit the medicine for an hour or two, and then recommence its use at longer intervals. In ordinary cases, I usually find after twenty-four hours, that the pain and fever are mitigated, and the breasts are smaller and softer. If these effects are not produced in that time, I double the dose, provided the stomach will bear it, and it rarely happens that it will not, for I have observed that in those cases which do not yield easily, the stomach is very patient of the medicine; probably this circumstance is the cause of the obstinacy, as it appears necessary to cause some nausea before the disease begins to yield."

Dr. B. has frequently employed this remedy in the hard knotty condition of the breasts, which so frequently attends the first week of lactation, and has found it contribute much to the relief of the patient, by softening and discussing the tumours.—*Medico-Chirurgical Review, for April* 1834.

CASE IN WHICH A TOOTH WAS LODGED IN THE RIGHT BRONCHUS.*

This curious and interesting case is related by Dr. Houston, in the last Number of our excellent contemporary, the Dublin Journal.

Case. John Clare, æt. 29, had occasion to have the second molar tooth of the upper jaw, on the right side, extracted by an operation. On the first attempt, a fragment of the crown was chipped off, and removed from the mouth. On the second, the tooth was removed from its socket, but suddenly passed down the throat, and was not afterwards seen.

At this instant the patient felt a momentary, sharp, pricking pain at the top of the windpipe. This was instantly followed by a severe fit of coughing, which soon went off, but recurred again several times without any evident cause, and at each time with less and less severity, until, after a few hours it ceased to produce any further annoyance. He afterwards experienced a feeling of undefinable uneasiness in the chest; a sensation of weight in breathing; and a tendency to draw heavy sighs, which haunted and which kept his mind in a continual state of inquietude. Occasionally, but not at any regular intervals, he coughed up a little frothy mucus, perfectly untinged with blood or purulent matter.

A consultation of several eminent professional men was held upon the patient twenty-four hours after the accident. In addition to the symptoms mentioned previously, the following stethoscopic signs were noted down:—there was a mucous rattle in the lower part of the trachea, audible even to the naked ear, but very distinct when heard through the stethoscope. Both sides of the chest gave a perfectly and equally clear sound on percussion; but notwithstanding their similarity in this respect, there was a marked difference

* Dublin Medical Journal, Jan. 1834.

* Dublin Journal, Feb. 1834.

in the intensity of the respiratory murmur, the sound of the air entering into, and expanding the right lung, being obviously more feeble than that heard at the same moment in the left. There was likewise, under the right clavicle a slight sonorous rale, a deviation from the natural sound of breathing not discoverable in any part of the left lung. These signs were fixed and not modified or removed by any alteration in the position of the body; nor by causing the patient to expire with violence, or to take a full breath.

As usually happens, there were two opinions. The stethoscopists supposed that the tooth had passed into and was lodged in the right bronchus. Those who placed little confidence in auscultation hesitated, doubted, and denied. The evidence was not sufficiently conclusive to allow either party to be positive.

The patient was received into the hospital. He was attacked in succession with pneumonia, bronchitis, and pleuritis, first in the right lung, and subsequently in the left. On the eleventh day he died.

Dissection. The lungs did not collapse on opening the chest. The right was every where adherent to the parietes of the thorax, except posteriorly, where a considerable quantity of thin bloody fluid lay between the pleuræ. On the left side the adhesion was universal. On both sides the adhesions were composed of recent lymph, that on the left being the most so.

The substance of the right lung was hepatized in every part; its structure readily gave way under pressure with the finger: and when cut into, the surfaces of the section discharged a quantity of serum and dark fluid blood. The left lung, though less advanced in disease, exhibited all the marks of intense inflammation, its integral structure was dense, heavy, and swollen with engorgement.

The tooth lay in the right bronchial tube, about one inch beyond its commencement. The fangs were directed towards the lung, the broken crown looked up towards the larynx. The bone lay loose in the tube, and came away readily when caught between the points of the scissors. It had two long fangs, and when tested with the splinter, which had been broken off in the first attempt at its extraction, and presented to Dr. H. by the man while alive, was found to fit most accurately to it, and make a perfect tooth.

The mucous membrane was generally and intensely inflamed; the inflammatory action was not greater in the vicinity of the foreign body than in parts which were remote from it.—*Medico-Chirurgical Review, for April* 1834.

M. DUPUYTREN.

Intelligence has been received in Paris, that the health of M. Dupuytren has been completely re-established.

He embarked at Leghorn on the 16th ult., for Naples.—*London Medical Gazette, February* 1834.

BARON DUPUYTREN ON PROLAPSUS OF THE RECTUM.

You know that this disease, which is much more common in infancy and old age than at any other period, consists in an eversion of the intestine, the upper part of which descends into the lower, as far as the margin of the anus, and projecting beyond it for the space of two, three, or even six inches. The intestine generally descends in this manner each time the patient goes to stool, or when he has remained standing for any long period, and the peculiar disposition of the gut seems often to coincide with a feeble, soft, lymphatic constitution. The method of treatment which would naturally present itself to the mind, is, doubtless, the reduction of the intestine, when we are unable to prevent its descent; in some cases this is easily done, in others it is difficult or impossible. Sometimes the tumefaction of the gut is so great, and the contraction of the sphincter ani so powerful, that the intestine becomes strangulated, and instant assistance on the part of the surgeon is demanded. The displaced gut acquires a volume double or triple its natural one, becomes of a dark red colour, ecchymosed, and is sometimes threatened with gangrene; in these cases the intestine should be immediately reduced in the following manner:

The patient is placed on his belly, with one or two pillows to elevate the pelvis and anus. The tumour must now be enveloped in soft moistened linen, and a compress placed exactly over its most prominent part. This being done, the base of the tumour should be pressed gently, so as to diminish its volume, and then pushed upwards by degrees; thus the reduction is effected upon that part which has come down the last. When reduction is impossible, some surgeons advise us to scarify; but as that method of treatment necessarily includes various incisions which may bring on inflammation of the great intestines, we should abstain from employing it whenever it is possible. The same remark applies to leeches, which may induce internal or external hemorrhage, and intestinal ulceration.

But even when we have succeeded in returning the prolapsed gut, the disposition

which originally caused its descent still remains; hence reduction is simply a palliative method, and cannot be regarded as calculated to produce a permanent cure. Cold baths and lotions have also been employed as curative means, with the intention of reinforcing the action of the sphincter and opposing the descent of the intestine. Cold baths, in fact, sometimes succeed, but they require a long time to act, great perseverance, and often produce such disagreeable sensations, that the patient is compelled to renounce their use. Astringent lotions, compression made with a sponge, and supported by a T bandage or mechanical means, suppositories of different kinds, &c., though sometimes attended with success when the child is young, usually fail in cases of adults or old people.

Here, then, we must have recourse to an operation, and excise the ring, or a portion of the ring, which projects, with any hemorrhoidal tumour which may exist on its surface. Yet the excision, though praised by Sabatier and other Surgeons, exposes the patient to certain accidents, and particularly to hemorrhage, which is often dangerous, and in some cases mortal. The removal of a large portion of this ring and of the hemorrhoidal tumours, followed by cauterization, independently of the excessive pain which it occasions, may determine a violent inflammation of the intestine and neck of the bladder.

These considerations, Gentlemen, induced me to ask a new mode of treatment, which might be free from the inconveniences attached to the old method, and would be, at the same time, more certain in its results. Before entering, however, on this part of the subject I will lay before you a brief anatomical description of the parts concerned.

The skin covering the margin of the anus is very fine, and coloured differently from any other part of the body. It contains a great number of mucous follicles, which secrete an oily matter, giving out a peculiar odour. The skin forms several prominent folds, separated by as many furrows, which converge from the circumference of the margin of the anus towards its centre; they even dip into the cavity of the anus, and are more numerous in proportion as the orifice is closed upon itself. When the anus is dilated they disappear; their use appears to be, to favour the dilatation of the anus, and excretions of fecal matter. Beneath the skin we have a layer of fibro-cellular tissue; below this the external and internal sphincters, composed, as you all know, of circular muscular fibres.

Having thus far recalled to your minds the anatomical structure of the parts, we may proceed to a description of the method of operating. The patient is placed on the abdomen, with the head and chest low, while the pelvis is elevated upon pillows; the thighs are separated, so as to expose the anus fully; the operator now seizes, with a dissecting forceps (whose points are broad, in order to give less pain,) two, three, or six, as occasion may require, of the folds of skin already described, and proceeds to remove them with a curved scissors, one after the other; the excision should extend as far as the margin of the anus, or even within its orifice; indeed, when the relaxation of the intestine is great, the excision may be prolonged to the height of a quarter, or half an inch, but in ordinary cases a few lines are sufficient. When the state of relaxation is moderate, it will be sufficient to remove one or two folds on either side; when the intestine is affected in a greater degree, it will be necessary to excise a greater number.

This operation, which occasions but little pain, and produces no inconvenience of any kind, is never followed by hemorrhage, for the only vessels divided, are the extremities of the hemorrhoidal arteries; however, should the incision be carried to any great depth, we can readily conceive that the internal hemorrhoidal vessels might give rise to a loss of blood. The effects of the operation are easily deduced, from a consideration of the anatomy of the parts. The anus in this kind of case is excessively dilatable. We propose to remove this morbid tendency by excising one of the tissues which enter into the composition of the anus, and by exciting the others to contract; this double object is obtained by the excision of the skin, and the consequent inflammation; the cicatrix formed by the junction of the edges of each wound, and the accidental tissue laid down, evidently contribute to produce contraction of the anus; by this means a new-formed, adherent portion of skin is substituted for one which was extremely loosely connected with the adjacent tissues.

Besides, the inflammation which succeeds, extending upwards to the sub-mucous cellular tissue of the rectum, contributes to increase the adhesion of the mucous and muscular tissues. No dressing of any kind is necessary; the pain occasions instantly a strong contraction of the sphincters, and the inflammation soon spreads from the incised points to the sphincter muscles and cellular tissue. The patient is generally costive for the first few days after the operation; but the inflammation soon diminishes, and the sphincters relax, to give

passage to the fecal matter, though they are ready to contract on the least effort. In a few days the cicatrix is formed, after which, as the excrement no longer acts on the ulcerated part, the opening is diminished, and the cure completed.

I have now been in the habit of employing this operation for ten years, and always with the same success; indeed, I remember only one case of relapse, and there the operation had been imperfectly performed, in consequence of the impatience and struggles of the child on whom it was practised.

Case 1.—A young and healthy woman, who had been affected for several years with a prolapsus of the rectum, entered the Hotel Dieu on the 20th of May, 1830. At the time of her entering into the hospital, the disease was not complicated by any hemorrhoidal affection, but presented this peculiarity, that the descent of the intestine occurred only once a month, when the patient went to stool; it continued for a few days, and then disappeared, to return again on the following month; the inconvenience occasioned by the descent of the gut was excessively great; pain, costiveness, a discharge of blood, mucus, &c., continually tormented her, and induced her to seek relief in an operation, which was accordingly performed in the following manner:—The patient was placed on the abdomen, with the pelvis elevated, and the thighs held asunder by an assistant; one of the folds, which I have described as running from the margin towards the centre of the anus, was now seized with a forceps, and excised as high as possible within the rectum; four other folds behind, and on either side, were excised in a similar manner. The pain occasioned by the operation was very moderate, and no hemorrhage took place; the wound was not dressed, and in a few days, when the patient went to stool, the intestine did not deseend; in fifteen days all the wounds were cicatrised, and the woman left the hospital perfectly cured.

Case 2.—This is the case of a child who was brought to the hospital towards the end of November, 1831. He had been affected for a considerable time with eversion of the intestine, and projection of the rectum, whenever he went to stool; the operation was performed in the manner already described. The little patient was placed on his belly upon a pillow, while an assistant separated his thighs; three folds of skin were successively removed with the scissors to within a few lines of the anus; the loss of blood was comparatively nothing. The next day the intestine came down as the patient went to stool; this is an accident which seldom occurs; it is, however, of little consequence; within fifteen days the wounds were nearly cicatrised, and the cure was complete.—*Lancet, February* 1834.

M. G. BRESCHET ON A NEW METHOD OF TREATING AND CURING CIRCOCELE AND VARICOCELE.*

Varicocele and Circocele are, as is well known, only varieties of the same disease; the first being a dilatation of the veins of the scrotum, the other of the spermatic chord, or testicle itself. Authors say this disease is more generally found in adults and in old people, but M. Breschet has had occasion to remark it much more frequently in young subjects, where it has been produced by an abuse of venereal pleasures. Whatever may be the cause of the disease, the symptoms are not confined to a simple distention, increased by heat, exercise, &c., but the patient experiences excessive pain along the chord, which is so severe as sometimes to give rise to the idea of a neuralgic affection.

The symptoms, in most cases, resist every means employed to combat them, or disappear for a short time, to return again with increased force: the veins gradually become more and more engorged; and M. Breschet has seen examples where the mass formed by the vessels of the scrotum and chord had acquired the size of a fist, or of the head of a young child. In such a state the disease had been considered incurable by most surgeons, who content themselves with recommending a suspensory bandage, and the application of topical astringents. Petit attempted the radical cure of the disease by taking up the vessels of the chord, and on two oeeasions practised the operation with success; but further trials have produced effects analogous to those which, it is well known, succeed so often to the ligature of veins in the extremities, and his example has few followers.

Latterly, the ligature of the spermatic artery has been advised; but the testicle is thus deprived of nutrition, and falls into a state of incurable atrophy. Finally, castration is recommended by some surgeons. Without alluding to the severity of this operation, and the removal of so important an organ as the testicle, it is clear that the method can only apply to cases of circocele. It therefore remained to seek for some new mode of cure; and M. Breschet conceived

* This memoir was read before the Royal Academy of Sciences, Paris, Jan. 13, 1834.

the idea of applying pressure to the varicose veins,—a method which had been attended with success in several cases where it had been put in practice. The two following cases, which were treated in the Hotel Dieu during the course of last year, present many interesting particulars:

Case 1.—Cirococele and varicocele of the left testicle, treated by pressure. Cure.—The subject of the present case; 29 years of age, first perceived some swelling of the left scrotum at the age of 15: a few years later the vein of the chord began to dilate, and to occasion a great deal of inconvenience to the patient, who in vain applied for relief to several surgeons; in consequence of which he entered the Hotel Dieu, on the 27th May, 1833, at which time the state of the parts was as follows: the integuments of the testicles were soft and relaxed, and knotted by various dilated veins, several of which had attained the size of the little finger. The left testicle did not appear to be enlarged; but the epididymis formed a large soft mass of vessels, which might be diminished by pressure, and was insensible.

M. Breschet was at first content to prescribe absolute rest, and the application of linen cloths, dipped in cold lotion. This treatment was continued for a month, and the veins of the scrotum and chord were diminished a little; but this improvement was only temporary, and whenever the patient walked about the ward, the varicose state returned to such a degree as to indicate that in a short time the disease would resume its ancient aspect.

M. Breschet now resolved upon putting into execution an idea which he had previously conceived, viz., to obtain the obliteration of the vessels by means of compression. For this purpose he procured small iron forceps, which acted by the elasticity of the branches alone. These were soon found to be inapplicable; and others were manufactured, the branches of which might be approximated by a screw to any degree of pressure. These were now applied to two of the largest veins upon the scrotum: they occasioned some pain, and a slight inflammation, which was easily removed. As the branches of the forceps were brought closer to each other, they produced a dry eschar, which soon became converted into an ulcer: the ulcer healed in a few days, without having discharged any blood; and the vein was gradually obliterated, leaving no trace of its existence, either by its colour or size. All the other veins of the scrotum, sufficiently developed to be seized by the forceps, were treated in the same manner, and with the same results. There still, however, remained the varicose veins of the chord, which might present many obstacles to the employment of the means already successful: these were therefore modified; a larger forceps, with curved blades, so as not to compress the fold of skin too strongly, was procured; two of the instruments were applied to the chord, one close to the inguinal ring, the other near the testicle,—the vas deferens, which was easily recognised by its volume and sensibility, being removed from the action of the blades.

The instrument at first caused a good deal of pain, which was mitigated by topical applications; their use was continued for seven days, during which time they produced, at first, an inflammatory tumefaction of the compressed parts, and then a superficial eschar; the ulcers resulting from these eschars were healed within fifteen days, when the fortunate results of the pressure were clearly seen; in fact, the chord no longer presented any knotted appearance, and was nearly of the natural size. However, there still remained a small mass of varicose vessels between the point where the lower forceps had been placed, and the origin of the epididymis from the testicle. Two other instruments were therefore applied, with all necessary caution, to avoid the vas deferens; they also remained on for seven days, and equally produced some inflammation, pain, and eschars; after which the varicose engorgement rapidly diminished and disappeared. The testicle was now found in a healthy state,—of the natural consistency and volume. The patient was recommended to continue in the hospital for a month after his cure was complete, during which time he walked about for whole days without suffering any inconvenience, or return of his original complaint.

Case 2.—Another observation in Mons. Breschet's paper, is the case of a physician who was treated by him in November, 1833. The varicose engorgement of the left spermatic chord had existed for several years, and at the time of the operation was as large as a man's fist. As Mons. M. had occasion to come to Paris, in order to improve his medical studies, he consulted several eminent surgeons, who all pronounced the complaint incurable, and advised topical applications, which were not attended with the slightest benefit. Mons. M**. happened to attend the Hotel Dieu, at the time one of the cases just detailed was under treatment, and was induced by the fortunate results to place himself under the care of M. Breschet. The left side of the scrotum presented a tumour as large as the fist; the touch was sufficient to disclose its nature and situation in that part of the

chord immediately contiguous to the testicle. The author thought it advisable (for what reasons he did not explain,) to promote as much as possible the complete dilatation of the veins, before proceeding to operate, and for that purpose administered every day a warm bath, and kept the scrotum enveloped in a warm poultice. When the vessels were well gorged with blood, one forceps was applied below the inguinal ring, the vas deferens being carefully excluded, and a second below the most depending portion of the tumour; the two instruments were separated from one another by the interval of an inch and a half; constant pressure was thus kept up for forty-eight hours, and M. Breschet, conceiving this sufficient to determine adhesive inflammation of the veins, removed the forceps, and applied some topical lotions. As in the former cases, the points upon which the instruments were applied, inflamed, and presented small ulcerations, which healed in a short time. The varicose tumour now commenced to diminish, and on the 25th of November was not larger than a small nut, and there was no trace of vessels containing any fluid. In about fifteen days more the scrotum had recovered its natural size, and the patient was finally cured by a treatment which did not occupy more than twenty days.

From these facts we are entitled to conclude with the author, that the method of treating varicocele and circocele by pressure, is, 1st, a simple process; 2nd, easily executed; 3rd, is applicable to every stage of the disease; and 4th, is certain in its results, while it does not expose the patient to the hazard of any accident.—*Lancet, 15th February* 1834.

CASE OF TRANSLATION OF THE MENSTRUAL DISCHARGE.

By Wm. Greenwood, Esq., Surgeon, Blyth.

J. F., æt. 18, a tall girl, of a spare habit, came under my care, with two large indolent ulcers, one extending from about an inch below the trochanter major, to the pubis, backwards, crossing the anterior superior spinous process of the ilium, to its junction with the sacrum. The other reached from the spine to the last of the false ribs, nearly to the sternum, and upwards to between the fifth and sixth ribs. They had an unhealthy appearance, with hard jagged edges, and a foul ichorous smell.

Several months before, on attempting to remove a kettle from the fire, her clothes were caught by part of the grate, and she was kept by the accident so close to the fire for some time that she was severely scorched. She had seen a number of medical men, and had tried a variety of applications, and undergone various modes of treatment, without inclination in the ulcers to heal.

This happened several months before I saw her. She had menstruated a few times regularly, since which she had "seen nothing" by the natural mode; but at each proper period there flowed from the ulcers a quantity of dark blood, continuing for twelve or fourteen hours, and sometimes for a few days. The breasts had swelled but very little, her voice was harsh and dissonant, and her behaviour altogether did not indicate that she belonged to the female sex. She was in a very emaciated state.

On my attendance, the edges of the ulcers were freely divided, the dilute nitric acid was applied, with straps of adhesive plaster, and she was ordered to take the following mixture and pills; to have, also, nourishing diet:—

R. Tr. Lyttæ ℥iss.
Tr. Aloes Comp. ℥iii.
Spt. Æther. Nitros. ℥ij.
Aqua Cinnam. ℥viii. M. Capt. Coch. magn. ij. ter die.
R. G. Galbanum.
Pil. Hydrarg.
G. Myrrhæ, aa. ℥ss. M. Ft. pil. xviii. Capt. ij. h. s. om. nocte.

Calling on the day when she expected to be unwell, I found a quantity of dark grumous blood oozing from the ulcers. She complained of pains in the back and thighs, with general listlessness. A mild ointment was applied until the discharge stopped, which took place in about eleven hours.

The mixture was changed for the compound decoction of aloes, and the pills were ordered to be taken occasionally, as her mouth was rather sore. From this time the character of the sores changed. They assumed a better appearance, and healthy granulations appeared on the surface. Towards the next month a slight discharge came from the vagina, and none from the ulcers, and the normal process has continued. Her breasts gradually enlarged, her voice lost its harshness, and the sores nearly healed. Her appetite became good, and, by taking gentle exercise, and using a nourishing diet, she has continued steadily to improve in health to this time. She has now returned to the country to her usual employment. — *Blyth, Northumberland, January* 1834.

[*Lancet, February*, 1834.

POST-MORTEM INCISIONS.

(From a Correspondent.)

An instrument for sewing up the abdomen, &c., after post-mortem examinations, has been lately invented by Captain Bagnall. It seems well adapted for the purpose, and by its use the accident of pricking the finger, which is so often of serious consequences, cannot possibly happen. It has obtained the approbation of the Society of Arts, and is, we believe, in use at St. George's Hospital. It consists of a pair of forceps, one blade of which is a little longer than the other, and has a fissure running a little way down it from its extremity. Into this fissure, when the instrument is closed, is received a beak, which projects at right angles from the other blade. This beak is about two-thirds of an inch long, and is grooved on the side towards the extremity of the instrument. When in use, the forceps is held in one hand, and a probe-pointed straight needle, with a ligature, in the other; the edge of the flap is seized by the instrument, and when its handles are closed, the beak of the one blade penetrates the skin, and enters the fissure of the other; the needle is now passed along the groove of the beak, and when the instrument is opened the needle is free. Probably with a little practice the anatomist may sew as neatly and quickly with this instrument as with the needle alone; and the danger from pricking must be quite obviated, as there is no sharp point in the apparatus. The instrument may be had from Thompson, of Windmill-street.—*Lancet, February* 1834.

ERGOT IN HEMORRHAGE FROM THE NOSE.

To the Editor of the Medical Gazette.

Sir,—If you consider the following notes to afford any confirmation of the alleged powers of the secale cornutum in arresting hemorrhage, you may perhaps think proper to append them to the list of cases published in a recent number of your journal.

I am, Sir,

Your obedient Servant,

RICHARD LAMING.

48, *Finsbury-Square, Jan.* 4, 1834.

Mr. G ———, aged about 55, and of a gouty and leucophlegmatic diathesis, was taken on Sunday, December 15, with epistaxis; from the occurrence of which on several former occasions he had been considerably reduced. It commenced at half past 8 A. M. and lasted vigorously till 10.

At seven the same evening it recurred for about fifteen minutes.

December 17th.—It took place a quarter before two, and again at nine A. M.; lasting each time about half an hour.

18th.—It recurred a quarter before three, and continued violently till four; again at five, lasting half an hour; then at eleven, for an hour and a half; and at 9 P. M. it again appeared for the fourth time this day. Up to this hour the ordinary measures had been adopted with but very temporary success; and on the two latter days the powdered secale cornutum had also been exhibited several times, in doses of six grains. I now resolved to make a fair trial of the ergot in larger doses; and, immediately on the recurrence of the bleeding at nine o'clock, commenced by exhibiting three grains of Battley's extract. After this dose, the epistaxis continued five minutes.

19th.—The patient was this morning awoke by the bleeding, at a quarter before four; and thereupon swallowed a draught containing three grains of the extract. This he repeated twice, after intervals of ten minutes; the third dose apparently putting an end to the discharge of blood in about fifteen minutes.

20th.—No return of the bleeding this day, although the patient rose from bed (for the first time since the attack) at eleven A. M. and remained sitting up eleven hours.

21st.—Four grains of the extract were given this morning, on the recurrence of the bleeding, at a quarter before nine, which it stayed in five minutes. The patient left his bed this day for nearly twelve hours.

22d.—The bleeding returned this morning, while rising, but was discontinued in five minutes by four grains of the extract.

23d.—Four grains of the extract were exhibited morning and evening this day, each time putting an end to the bleeding after five minutes.

January 4th, 1834.—Since December 23d, the bleeding has entirely ceased. The whole quantity of extract taken was twenty-eight grains; and it seemed to produce no other than the described effects.—*London Medical Gazette, February* 1834.

MELÆNA.

The case of gastro-enteric hemorrhage, (entero-rhagia; melæna) occurred in the person of George Craig, a man of 35, sanguine and plethoric in appearance. This man, who had been at one time a soldier, but now pursued the occupation of a tailor, had been for many years past addicted to incurable and uninterrupted habits of dram-

drinking; and all the money which he was enabled to procure was spent in indulging this craving for liquor. For two weeks previous to his application at the hospital, he had complained of a painful sense of weight and distention all over the abdomen, but referred more particularly to the umbilical region and the upper margin of the hypogastric. This was accompanied with sensations of dulness, headach, impaired appetite, occasional squeamishness, much thirst, and general feebleness. The headach subsided on the 2d or 3d day; and the only symptoms which continued obstinately were the faint squeamishness, and the painful sense of tension and weight, which was at admission referred to the epigastric, umbilical, and upper part of the hypogastric regions, with occasional sickness, but without vomitting, tenderness, or tension. The tongue was white and moist; the bowels were reported regular; the pulse was natural, from 70 to 80; and the skin of moderate warmth. Two colocynth pills and three ounces of infusion of senna had the effect of moving the bowels freely but gently, cleansing the tongue, and abating the abdominal pain very much; and on the 14th he had no complaint except squeamishness. As the pulse and cutaneous heat were natural, all medicine was omitted; and he was left to the effect of the fever diet, and time.

He continued easy and without complaint, except a little sickness, till about eight in the evening, when he began to feel a sense of weight in the belly, which continued till half-past ten. At this time an urgent call to stool was followed by a copious gush of pure blood from the rectum, which was repeated at different times in the course of one hour and a half, till it amounted to five or six pounds. At 12, an opiate enema was administered; and after this no more blood was discharged; but he continued in a very faint and languid state for about three hours, and expired at 3 on the morning of the 15th.

The blood discharged from the intestines when examined next day, consisted of dark-coloured fluid blood mixed with large clotted masses.

On laying open the cavity of the abdomen, the peritoneal surface of the intestines was deeply stained of a dark-pink red colour, in some points lighter, in others more intense, but particularly along the whole course of the ileum.

In the cavity of the stomach were found two pounds of blood, chiefly dark-coloured, partly clotted and grumous, partly semi-fluid. When this was removed the mucous membrane was observed to be deeply tinged with red blood, and the membrane was itself thickened and injected but not softened. The mucous membrane of the œsophagus was perfectly pale and blanched. On holding up the mucous membrane to the light, the large vessels were seen much loaded, and the substance of the membrane itself deeply tinged, and the small vessels distributed through it. Upon the most careful examination of the membrane, no blood was found issuing from any particular aperture.

The mucous coat of the duodenum was in like manner coloured deep-red, and the glands were somewhat more distinct than natural. The whole mucous membrane of the jejunum and ileum was in like manner deeply tinged with red blood. Fully three pounds of blood, partly fluid, were found chiefly towards the lower part of the ileum; and when this was removed, and the mucous membrane carefully washed, it still presented a very deep colouration, its vessels much injected, and the villi much erected and covered with a thin pasty layer, which was also tinged red. On the most careful examination of the whole membrane, no aperture could be discovered, but merely a general oozing from the membrane. Previous to removing this substance, the superior mesenteric artery was exposed, and a quantity of water forcibly injected, but without detecting any open or ruptured aperture, the water escaping only from the surface of the membrane by numerous minute vessels. The intestinal glands, both solitary and agminated, were perfectly healthy. A small quantity of clotted blood was found in different parts of the colon, but its membrane was healthy.

The liver was perfectly healthy.

The spleen was very much softened, and of a deep colour, like masses of coagulated blood.

Head.—The membranes and surface of the brain were more injected than natural, and its substance presented numerous dark red streaks. The ventricles were also dilated, and contained a small quantity of serum. A good deal of serous fluid was found in the sub-arachnoid tissue at the base of the brain.

The lungs were perfectly sound.

The heart was free from disease, and its valves perfectly healthy. But the beginning of the aorta, between the similunar valves and the arch, was much elevated and irregular, from steatomatous matter deposited in tubercular masses, and especially around the origin of the large vessels; and a large crimson red patch was found on the arch under the *tunica intima*. The right kidney was deeply injected, but healthy; the left presenting some disease of the granular matter.

The appearances show clearly that the intestinal hemorrhage which had proved the cause of the death of this man did not proceed from any single vessel, or two or three vessels, which had been eroded, perforated, or ruptured, as might have been imagined, but that it issued from the vessels of the entire mucous surface of the duodenum, ileum, and perhaps also from those of the stomach, previously thrown into an injected and congested condition, and then undergoing disorganization at their extremities, as in melæna, yellow-fever, and similar states of the gastro-enteric mucous membrane. I afterwards learned from a respectable man, who was in the habit of employing Craig, that he was a habitual dram-drinker,—that all the money which he earned was spent in the purchase of spirits,—and that, after he had received a few shillings for his work, he was in the habit of spending it all by sixpences in drinking, so that he was often days without food, or taking any but the deleterious liquor to which he was much attached; and that, previous to the illness which proved fatal, he had spent several days in this pernicious course.—Dr. Craigie *in Edin. Med. and Surg. Jour. January* 1834.

LITHOTRITY PERFORMED BY AN INDIVIDUAL ON HIS OWN PERSON.

To the Editor of the Medical Gazette.

Sir,—In the Asiatic Register for the year 1801 is the following case of Lithotrity, performed by an individual on his own person. It is related among other authentic anecdotes of a very eccentric character, Major-General Claude Martine; and as it shews who was the original inventor of this operation, you may deem it worthy of record in your Gazette.

Your obedient Servant,
D. M. D. Devizes.

December, 1833.

"During the last fifteen years of his life he was much afflicted with the stone and gravel; and disliking to undergo the usual surgical operation for that complaint, his ingenuity suggested to him a method of reducing the stone, so curious in itself, and so difficult in execution, that we should have doubted the truth of the fact, were it not attested by the positive evidence of several gentlemen of the first respectability. He took a very fine steel wire, of about a foot long, one end of which he cut in the manner of a file. The wire, thus prepared, he introduced by a catheter, through the urethra, into the bottom of the bladder, where the stone was seated. When he found the wire touch the stone, he gently worked the wire up and down, so as to give it the effect of a file; and this he continued to do for four or five minutes at a time, until the pain which the operation of the wire produced was so excruciating, that it obliged him to withdraw it. But finding small particles of the stone discharged along with the urine after the operation he repeated it in the same manner from time to time, till in the course of twelve months, he succeeded in completely reducing the stone. * * * * * Some years after the operation, gravelly concretions began again to form in the bladder; and as he did not choose to try the wire a second time, these continued to increase until the end of the year 1800, when they finally occasioned his death.—*London Medical Gazette, February* 1834.

SENSATION PRODUCED BY THE CONTACT OF A CHOLERA PATIENT.

To the Editor of the Medical Gazette.

Sir,—Having been actively engaged in the treatment of malignant cholera, when it raged with extreme violence in this town, in October, 1832, I had ample opportunities of observing the various phenomena which characterize that mysterious disease. The most extraordinary, and not the least remarkable of these, is a peculiar thrilling and benumbing sensation communicated to the fingers, on touching the body of a patient labouring under that disease; this sensation bears a great resemblance to a slight galvanic shock, and extends from the extremities of the fingers to the wrist, and occasionally even as far as the elbow-joint; and is more particularly observable when the patient is in a state of collapse, and when the body is bedewed with a cold and clammy moisture. I am not aware that any writer on epidemic cholera has noticed the above sensation as one of the distinctive characters; which is surprising, since it has been experienced by several of the medical gentlemen practising in this town, and has been particularly observed by Mr. Maclaughlin and by Mr. Charles Bell, who officiated as surgeon to the Dumfries Cholera Hospital.

Whilst on the subject of cholera, it may be mentioned, that, about six weeks ago, it re-appeared in Dumfries, in a sporadic form; isolated cases presenting themselves in almost every part of the town. Up to the present date, nearly thirty cases have occurred, the greater part of which rapidly proved fatal. The cases that came under my own care, equalled in malignancy any of those I witnessed last year, and of course were as little under the influence of medicine.—Dr. James Grieve *in Medical Gazette, January* 1834.

THE INDIA
Journal of Medical Science.

CALCUTTA; SEPTEMBER 1, 1834.

There are few diseases attended with a more afflicting train of symptoms than stone in the bladder; and medicine has hitherto effected but little for its relief. This is partly owing to the comparative obscurity that besets the pathology of the disease, more especially with reference to its cause. To Surgery alone, the sufferer from stone has hitherto looked for the cure of his ailment, even at the risk of a very serious operation. The invention of Lithotripsy of late years, holds forth a hope that Lithotomy may, in the process of time, be altogether superseded. As yet, however, the details of the operation are familiar to so very few that lithotrity or lithotripsy, (for it is known by both names) will take many years to come, before it can become general.

At one time there was an impression that stone in the bladder was a rare disease in India. The observations of those able Surgeons Messrs. Burnard and Brett, would of themselves be sufficient to demonstrate the erroneousness of such an impression, even had there been no testimonials from various other quarters to invalidate its correctness.

Dr. Finch's valuable paper in our present number records a few cases of stone successfully treated by operation, with the exception of one, the result of which remains to be seen, but which does not appear to promise auspiciously owing to circumstances explained by the writer. One of these was the concealment, on the part of the parents, of an ailment to which the child seemed to be constitutionally subject. The fault of omission on such occasions, is one to which Natives are generally too prone, for they give information respecting their complaints as it were by instalments; so that not unfrequently in the midst of his curative measures, the practitioner becomes apprized of some affection, or tendency, which, had he been sooner made acquainted with, would have perhaps contra-indicated some part of his remedial plan.

The observations preceding Dr. Finch's cases will, we hope, excite a spirit of further enquiry among our readers, that may lead to the acquirement of more information on a point of great consequence. Our talented contributor leans to the idea, that the influence of climate may be more operative than is generally imagined, as a cause of calculous disorders.

Mr. McCosh's paper gives a vivid idea of the duties which sometimes fall to the Military Surgeon's lot in this country; while it affords to the observer of human nature a subject of congratulation in one respect, rather of a melancholy character to be sure, but still evincing that something has been gained for mankind by civilization as respects the mode of waging war between belligerent parties. Ugly as may be the wounds occasioned by gun-shot, they are generally less awful to appearance, and less dreadful in their consequences, than those produced by the weapons of barbaric warfare, such, for instance, as the terrific arrows of the Chooars, who apparently seek to torture, as well as to disable the victim! The inhabitants of the south-western frontier of Behar and of the north-eastern frontier of Bengal, use the same formidable weapon; once safely deposited in any part, the chances are that the lethal weapon can only be withdrawn at the cost of enlarging the wound to a very fearful extent; or of a force so enormous, that the very impression of its being necessary jars upon the imagination of the Surgeon (if we may so phrase it). A bullet any way gives some chance of escape, it will pass either through and through, or lodge. If the former, recovery may take place according to

circumstances of vital locality and constitution. If it lodges—it is of a form the least calculated to create irritation. An arrow generally sticks—and its form is such, that if the shaft comes away, the pointed, barbed, and angular weapon creates the greatest local and constitutional disturbance. In a word, an arrow is one of the most destructive weapons of war we know. The professional reader will not forget Mr. McCosh's valuable practical suggestion in extracting a barbed arrow from a wound, to introduce a director down upon each barb, so as to get the same into the groove of the director, when the arrow head may be extracted with comparative ease. As for the wantonness, with which some of the atrocious assaults on individuals, alluded to by Mr. McCosh, were made, it cannot fail to strike the reader, but the reflexions arising out of it belong rather to the moralist, than to the medical critic.

Mr. Raleigh's summary brings its usual claims to the reader's attention and consideration, clear and distinct views of disease in plain yet expressive language, just inferences from facts observed, and a straightforward decided system of practice. The remarks on fever, especially of the congestive form, so prevalent, and so dangerous at this time of the year, and the illustrative cases, are fraught with interest.

Sulphate of Rohunna.—The salt sent by Mr. Piddington, under the name of sulphate of rohunna, has the following properties, and action towards re-agents:

1.—The sulphate of rohunna is in the form of light-brown coloured lamellar crystals, having a micaceous lustre.

2.—Taste very bitter; leaving the bitterness for a long time upon the tongue.

3.—Sparingly soluble in cold, but more so in boiling distilled water; it dissolves in diluted sulphuric, muriatic, and nitric acids, and in alcohol.

4.—The aqueous solution does not change the colour of litmus and turmeric papers.

5.—Dissolved in alcohol, and fired, the flame differs not from that of alcohol alone.

6.—It melts in a gentle heat, the melted salt having a deeper colour than the sulphate of quina, at a higher temperature it turns black, flames, and leaves a coal.

(a.) Which coal before the blow-pipe dissipates, and leaves a slight white stain on platina foil.

7.—The salt touched with concentrated nitric acid strikes a deep red colour, which soon becomes scarlet; and, finally, reddish brown.

8.—The aqueous neutral solution gives, when tested with tincture of galls, a copious white precipitate.

9.—A very dilute aqueous neutral solution, in cold water, gives no immediate precipitate to solutions of ammonia, potash, and soda; a stronger solution slowly deposits needle-like, silky crystals; and a still stronger solution, in boiling water, immediately shews a copious, white, flaky precipitate, on being tested with saturated solutions of potash and soda: while needle-like crystals are quickly formed by treating it with ammonia.

(a.) The crystals obtained from the above-mentioned solution of the salt in cold water, and precipitated by the mineral alkalis, restore the colour of litmus paper, which has been reddened by an acid; they are perfectly white, nacreous, and needle-like; and in taste exceedingly bitter. On being touched with nitric acid, a crimson colour is given, which gradually goes through the changes mentioned of the sulphate in experiment 7. Gently heated, they melt very much like the sulphate of quina, burn on the heat being raised, and leave a coal; which dissipates altogether before the blow-pipe.

(b.) The flaky precipitate, from the strong solution, is found, when dried, to

be crystalline; and to have all the properties of the crystals (Exp. 9 *a*).

10.—The aqueous solution, acidulated by muriatic acid, and tested with liquid sulphuretted hydrogen, gives no precipitate. Nor does the aqueous neutral solution, with hydro-sulphuret of ammonia.

11.—The aqueous neutral solution yields a copious, white, flaky precipitate, when tested with the sub-carbonate of potash, of the pharmacopœia.

(a.) Which precipitate when collected and dried is reddened by nitric acid, and dissipates entirely before the blow pipe.

12.—The aqueous neutral solution gives a very small quantity of a straw-coloured precipitate, with muriate of platinum.

13.—The aqueous neutral solution gives a copious white precipitate with muriate of barytes: which—

(a.) On being treated with free muriatic acid remains unchanged.

REMARKS. — The above experiments seem to shew that the salt is in a neutral state (*Exp.* 4); that its base is an alkaloid, or alkali of a vegetable, (*Exps.* 6, 7, 8, 9, 9*a*. 9*b*.) that it contains none of the metallic oxides (*Exp.* 10) nor earths (*Exp.* 11*a*.,) that it contains a slight trace of a fixed alkali (*Exp.* 6*a*.) which is presumed to be potash (*Exp.* 12); and that its acid is the sulphuric (*Exp.* 5, 13, 13*a*.)

Morphia, brucia, and their salts are also reddened by nitric acid; but the colour struck by the former differs widely from that of the salt of rohunna; and that of the latter is said to become blue on the addition of muriate of tin. The sulphates of those alkaloids, moreover, crystallize in forms which have not the least likeness to those of the sulphate of rohunna.

The conclusion from all which is, that,—the salt in question, is a compound of sulphuric acid, and a new vegetable alkali or alkaloid.

Feeling, however, that as we have always had our attention directed rather to pharmaceutical, than to analytical chemistry, our conclusions might be any thing but infallible, a portion of the salt was sent to Mr. James Prinsep, along with the notes of the above experiments. And in consequence of his remarks upon experiment 9, the first part only of which had then been made, that experiment was repeated, with a full confirmation of his results of the test by potash, and the further discovery of some of those mentioned in the latter part of experiment 9, 9*a*. and 9*b*. We are happy at having this opportunity afforded, by the publication of the annexed letter, of expressing our thanks for obligations conferred upon us, on this, and on many other occasions, by that gentleman; whose real attainments in chemical science, are equalled, but by the kind readiness, and absence of all pretence, with which he exerts them in rendering assistance to others.

"I have repeated most of your experiments on the specimen of sulphate of rohunna with the same results as those announced in your note on the subject. The combination of sulphuric acid with some alkaline principle is proved beyond a doubt, and the distinction between this base and the vegeto-alkalies already known, is, I think, strongly marked, especially by the nitric acid test. I shall only allude to such experiments as vary in any degree from yours.

1.—Before the blowpipe the *sulphate of rohunna* blackens as it melts, takes fire, and yields a coal, which dissipates with continuation of heat, and leaves a very slight saline residue, probably sulphate of potash. The pure rohunna melts like wax without discoloration, and burns with a bright flame.

2.—The following vegeto-alkalies were placed side by side on a porcelain plate, and touched with a drop of strong nitric acid.

1. Quinine (Europe)—gave colourless solution.
2. Quinine (Indian)—ditto.
3. Morphia,—struck a fine orange red.
4. Impure Strychnia, containing a small portion of brucine, gave at first an umber, quickly changing to a green yellow.
5. Sulphate of Rohunna, a fine rich blood red, changing to orange red, and after some time to dark brown.
6. Silky crystals of Rohunna, a bright orange red.

This new alkali has a most powerful quality of imparting a bitter taste, far exceeding quinine in this respect; it is equally bitter in its state of sulphate.

I find (see your experiment 9) that Ammonia does not precipitate Rohunna, but the fixed alkalies do throw down in a short time copious silken crystalline groups of a nacreous white lustre—it is upon these that the trials alluded to above were made. I have the pleasure to send you a specimen."

Your's sincerely,

J. PRINSEP.

16*th August.*

We have only to observe further, that we have tried the magnesia process of Henry, with the Rohunna bark, and failed in procuring an alkaline base; and that an experiment is now in progress upon Mr. Piddington's plan, of the success of which there is great reason to doubt. But should it fail, there are at least three sources of failure, any one of which would suffice to account for it:—

1.—Error may arise in our conduct of the process: or—

2.—The bark operated upon, may be of a species of Rohunna, different from that used by Mr. Piddington: or—

3.—The bark operated upon, though of the same species, may have been gathered in the wrong season for the full development of its virtues.

The subject of Native Medical Education is confessedly one of very high importance, but the want of any thing like a well organised system of medical statistics in India, deprives the reformer of many data, which would render this truth more manifest than it may appear to some. It would be highly desirable, if returns could be procured of the number of regular Hindoo and Mahomedan Medical Practitioners in the different villages and towns, as compared with the rest of the inhabitants. The result would probably shew that the labourers are few, considering the vast extent of the field; and that the poorer classes scarcely receive any Native medical assistance at all. The prejudices of caste and the national apathy offer but a poor soil to the cultivation of those higher feelings and motives, which ought to sway the professors of the healing art. This state of things is also fostered by the people of wealth and condition, who usually make a peddling bargain with the practitioner, that he is only to be rewarded in case of success. The evils of such a system might be enlarged upon, but it would be unnecessary, as they are obvious on very little reflexion. It is easy, therefore, to conceive how much misery and suffering flow from the low state of Medical Science among the Natives.

That a reform in the matter is urgently required, few will be so hardy as to deny. Indeed with Europeans, the question of the necessity of an improved and extensive system of Native Medical Education, is one on which, in the abstract, there appears to be no difference of opinion. The same, however, cannot be asserted respecting the mode in which it should be carried into effect.

Of surgical knowledge, it may be said that the Hindoos possess scarcely any beyond what may be required for opening a superficial abscess, applying the cautery, or dressing a common sore. How indeed can it be expected that they should be conversant even with the first principles of surgery, when it is notorious that they are not only quite ignorant of the very basis of the science—anatomy; but that their religious prejudices are entirely abhorrent to the practical study of it? Of the practice of physic they have perhaps more correct notions, for any man of common sense, and possessing a tolerable capacity for observation, may become conversant with the symptoms of various diseases, and acquire an empirical knowledge of the powers exerted by certain natural and artificial agents for their mitigation.

The Mahommedans of India are pretty much upon a par with the Hindoos on the points alluded to. But few of them, we imagine, are acquainted with the works of the Arabian School of Medicine, and those that are, generally will be found not among those who practice medicine as a profession. We are not aware that the Mahommedans of India possess any medical works of their own, and if so whether their merits are of a higher character than those of the Susrutti of the Hindoos, or the reverse.

Where the state of medical knowledge then amongst its legitimate professors, the Vaids and the Hakeems, is confessedly in such an imperfect state; and where the scale of reward for excellence is so very low, the inquirer will not be surprised to learn that quackery and empiricism of the very worst character prevail to an enormous extent, and are productive of consequences that may well make the philanthropist shudder!

Many lives are yearly sacrificed to the unprincipled rapacity of the native quacks, who, with an ignorance proportioned only to their cupidity, prescribe the most deleterious compounds and drastic mixtures which, if they miss killing the patient in a short time, leave him in a most pitiable condition. These men are like birds of prey, and quarry on the people, and even some of the best informed among the Natives, sometimes fall into their snares, and in the long run, find reason to congratulate themselves if they suffer in their purses only.

Metallic Oxides, are favorite nostrums with native quacks, and they use them with so little discretion, that it is only surprising that more accidents do not occur than those which absolutely fall under observation. Arsenic, and mercury in various combinations, are frequently prescribed by them rashly and indiscriminately as respects disease. Arsenic occasionally does its work speedily enough, but the European practitioner seldom sees the victim. Not so, however, with patients who have been mercurialised after the native fashion. Many of these come under the notice of the European physician in a very deplorable condition. But the persons in question occasionally flourish the scalpel! Their utter ignorance of anatomy renders them rash, and now and then instead of opening an abscess they cut through an artery, and being unable to stop the hemorrhage, steal away in the confusion produced by such a mal apropos circumstance. Many cases of fracture and dislocation are left to nature. The same may be said of some cases of wounds. Their treatment of ulcers is, generally speaking, meddling and mischievious. Hundreds also, we have reason to believe, owe the loss of sight to their bad practice, especially in cases of ophthalmia and venereal ophthalmia, which, even in the hands of the European Surgeon, require the most prompt and decisive measures. Not to enter further into such details, we may content ourselves with stating, that understanding little or nothing of the real nature of disease, or of their own remedies, their main object is to extort as much money from the unfortunate applicant for their aid as possible, and when he can afford to pay no more, he is left in the lurch much worse than when he first put himself under their management.

Where lies the remedy for all this? in education generally, and Native Medical Education in particular, and that on European principles. Then comes the question, in what language should the requisite instruction be conveyed? We answer for ourselves, in the English language. We are aware that we differ on this point from persons of great experience and information, and for whom we entertain much respect. Notwithstanding, we are not the less persuaded, that the only way to teach the natives the science of medicine thoroughly, is through the medium of the English language, which contains in its exhaustless

stores of knowledge of every kind, an immense wealth of medical erudition.

Dr. Campbell's paper, we conceive, makes very strongly for our side of the question. Until Natives are practically instructed in human anatomy through the medium of the English language, they never will have proper confidence in our system of medicine, and how can they become able and enlightened practitioners of rules in which they have no innate confidence? The subject altogether possesses deep interest, but we cannot pursue it further at present.

MEDICAL RETIRING FUND.

Our readers have been made acquainted through the medium of the newspapers, that the Medical Retiring Fund of Bombay, has received the conditional sanction of the Court of Directors. And as the conditions annexed to that sanction merely relate to some details of execution, not to the principle of the plan itself, we may look upon this important point as well settled for our Brethren at Bombay.

We have all along stated our conviction, that our own Fund would eventually succeed, and this opinion has thus been confirmed so far as probability goes, by what has occurred at Bombay, and from all that we hear from home. It is matter of congratulation too, that the obnoxious clause, excluding Members of the Medical Board who do not retire after two years service in that rank, from the benefits of the Fund, which was objected to by the Court of Directors in the Bombay Plan, has been omitted in our own. And it is upon this occasion but an act of justice to the Calcutta Committee of Management to state, that the merit of this belongs entirely to them. The omission of the clause in question, was one of the alterations made by them, and a cause of the outcry raised against their proceedings about a year and a half ago; but which was, as it now appears, as wise in practice, as in principle it was correct.

MEDICAL INTELLIGENCE.

General Orders relating to the Medical Service.

BY THE VICE PRESIDENT IN COUNCIL.

July 19th.—No. 144 of 1834.—Deve Laul is appointed Native Doctor to the Civil Station of Moorshedabad, vice Kanheice Laul Dhobey.

Bhowany Dheen to be Native Doctor to the Civil Station of Cuttack, to fill an existing vacancy.

21st.—The following Officer has obtained leave of absence from his Station:

Mr. James Taylor, Assistant Surgeon, attached to the Civil Station of Dacca, for six weeks, on Medical Certificate.

24th.—No. 148 of 1834.—The Honorable the Vice President in Council is pleased to make the following Appointment:

Assistant Surgeon John Jackson, to the Medical duties of the Civil Station of Ghazeepore, vice Surgeon D. Butter, M. D., promoted.

31st.—The Vice President in Council is pleased to appoint Assistant Surgeon John Fergusson Bacon to Officiate in Medical Charge of the Civil Station of Moradabad, vice Brett removed.

The extension of leave of absence granted to Surgeon Isaac Jackson, of the Medical Department, in General Orders No. 43, of the 6th February 1834, is further prolonged for a period of six months, on Medical Certificate.

August 4th.—The following Officers have obtained leave of absence from their Stations:

Mr. G. King, Surgeon of the Civil Station of Patna, for six weeks, on private affairs.

Mr. John Jackson, M. D., Assistant Surgeon of the Civil Station of Ghazeepore, for three months, from 1st June last, on Medical Certificate.

Mr. W. B. O'Shaughnessy, M. D., Assistant Surgeon of the Civil Station of Behar, for six weeks, on private affairs.

7th.—Assistant Surgeon William Jacob, of the Medical Department, is permitted to proceed to Europe on Furlough, on Medical Certificate.

The following Students of the Native Medical Institution are admitted to the Service as Native Doctors:

Maudhow Laul, Ishwaree Prasaud, Meer Jaun, and Mohammud Naeem Khaun.

Ishwaree Prasaud is appointed to the Civil Station of Southern Central Assam, and the remaining three Native Doctors, viz. Maudhow Laul, Meer Jaun and Mohammud Naeem Khaun, are placed at the disposal of the Commander of the Forces.

14th.—The following Medical Officers have obtained leave of absence in the Judicial and Revenue Department, under the dates specified:

11*th August* 1834.—Assistant Surgeon Duncan Stewart, M. D., attached to the

Civil Station of Howrah, for one month, on Medical Certificate.

Assistant Surgeon Charles James Davidson is appointed to perform the Medical duties of the Civil Station of Howrah, during the absence of Assistant Surgeon D. Stewart, or until further Orders.

18th.—The following Officer has obtained leave of absence from his Station:

Mr. G. N. Cheek, Assistant Surgeon of the Civil Station of Burdwan, for two months, on private affairs.

By the Major General Commanding the Forces.

July 21st.—Assistant Surgeon E. W. Clarributt, at present doing duty with the 9th Regiment Native Infantry, is appointed to the 4th Battalion Artillery at Dum-Dum, and directed to join.

23d.—The Neemuch Station Order of the 28th ultimo, appointing Assistant Surgeon G. E. Christopher, of the 2d Regiment Light Cavalry, to the Medical Charge of the 51st Regiment Native Infantry, until further orders, is confirmed as a temporary arrangement.

The Saugor Division Order of the 9th instant, posting supernumerary Native Doctor Hosain Bukhsh to the 4th Regiment Native Infantry, with which Corps he is at present doing duty, to fill a vacancy, occasioned by the transfer to the Pension Establishment of Shaick Khyratte Khan, is confirmed.

Assistant Surgeon H. A. Bruce, M. D., is removed from the European Regiment, and directed to join and do duty with the 35th Native Infantry at Jumaulpore.

26th.—Surgeon W. Dyer is removed from the 72d to the 50th Regiment Native Infantry at Barrackpore, vice Dempster.

Assistant Surgeon C. Griffiths, who was directed to proceed to Benares, in General Orders of the 9th instant, is appointed to do duty under the Superintending Surgeon at Dinapore, until further orders.

Assistant Surgeon W. Dunbar, M. D., at present at the General Hospital, is directed to do duty in the Hospital of the 4th Battalion Artillery at Dum-Dum, till further orders.

35th Regiment Native Infantry—Surgeon J. M. Todd, from 1st August to 1st June 1835, in extension, to remain in the Hills, on Medical Certificate.

29th.—Assistant Apothecary Robert Maycock, who was placed at the disposal of the Major General in Command of the Forces, in General Orders by the Vice President in Council, under date the 19th instant, is directed to join and do duty at the General Hospital, until further orders.

August 2d.—Surgeon D. Butter, M. D., of the 70th Native Infantry, is directed to proceed to Mullye, and do duty with the 63d Regiment, until further orders.

The undermentioned Officer has leave of absence:

Sub. Medical Department—Apothecary M. Barrett, from 3d July to 1st September, to remain in Calcutta, for the purpose of attending a Subpœna from the Supreme Court.

12th.—The undermentioned Native Doctors, lately admitted into the Service from the Native Medical Institution, are disposed of as follows:

Maudhow Laul to do duty under the Superintending Surgeon at Dinapore.

Meer Jaun to do duty under the Superintending Surgeon at Cawnpore.

Mohammud Naeem Khaun is appointed to the 45th Regiment Native Infantry at Muttra, in the room of Hurloll invalided.

25th.—The Sirhind Division Order of the 6th instant, directing Hospital Steward John Hampton, of the European Regiment, to continue doing duty in the Hospital of the Artillery at Kurnaul, until the Invalids of the season move towards the Presidency, is confirmed.

Assistant Surgeon J. Macdonell, at present at the General Hospital, is directed to proceed to Dinapore, and place himself under the orders of the Superintending Surgeon of that Station.

TO CORRESPONDENTS, &c.

The following Communications will be inserted as soon as possible:

Dr. J. Esdaile's Case of formation of Fat in the Heart and neighbouring Vessels.

Dr. D. Stewart's Case of Ligature on the Aorta, performed by Dr. Murray.

Dr. Atkinson on popular notions on Health and Disease.

Observations on the Equus Hemionus or Dziggetai.

Mr. O. Wray's further remarks on the case of T. Synott.

All papers, not inserted in our notices to Correspondents, may be considered as declined.

ERRATA.

Page 319, column 2, line 12, from the bottom, for "visceræ" read "viscera."

Page 322, column 2, line 26, from the top, for "indigestable" read "indigestible."

Page 324, column 2, line 24, from the bottom, for "apthæ" read "aphthæ."

Page 324, column 2, last line, for "on the apthæ" read "of the aphthæ."

Page 325, column 2, line 28, from the bottom, for "become" read "becomes."

Page 325, column 2, line 11, from the bottom, for "deserve" read "deserves."

Page 326, column 2, line 26, from the bottom, for "result" read "results."

THE INDIA

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Original Communications.

OBSERVATIONS

On the Disease locally designated Hill Fever.

By Assistant Surgeon Wright,

8th Regiment Madras N. I.

The Northern Circars are in part traversed by an extensive hill range, running from north to south nearly parallel to the sea coast, which has long been noted on account of the insalubrity of the climate, the rebellious character of the inhabitants, and the sickness prevalent amongst troops employed in quelling disturbances.

Since November, 1832, I have been at intervals in medical charge of Field Detachments actively employed in these hills, and, even when residing in the Cantonment, have had ample opportunities of becoming practically acquainted with the prevailing disease hill fever—the sick being transmitted for treatment and change of air. My object, however, is not to give a formal description of the semiographic and pathological characters of the disease, but only to relate briefly practical observations. For, during the late rebellions, the number of those who have been smitten by this pitiless genius of the hills, has been great—although the mortality, in comparison with that of former years, has been proportionally small. This may be attributed to the late deficiency of the periodical rains—but I think the meed of praise is more justly due to the analytical chemist, who first resolved the bark of the Cinchona tree, into its primary constituent principles.

I am only locally acquainted with that part of this range which runs from the neighbourhood of Vizianagram to Palcondah, a distance of between 30 to 40 miles. The general surface of this is mountainous, being composed of ridges stretching out in every direction. These are covered with thick jungle which also surrounds their base. This chiefly consists of prickly and thorny shrubs of every description, with the hill bamboo shooting out in clusters, whilst large trees and the more stately productions of the soil are only to be seen at intervals. Gneiss is the predominating rock—which in many places becomes indistinctly stratified so as to resemble granite—it is very metalliferous, and, like the gneiss of Europe, contains numerous imbedded garnets. Amongst the hills are various vallies partaking of every description of site—the superficies of which, and of the hills in general, consists of a rich mould from two to eight feet in depth even to their summits. This all admits of cultivation; the jungle being cleared away in many places by the inhabitants, and there being fields of dry grain even near the summits of the highest hills. There are frequent streams of clear water in the gorges between the hills; but swamps and morasses, the common sources of periodic fever, are no where observable. We must, therefore, trace the invisible febrific agent amidst the thick and impervious jungles, the ground there being covered by a superficies of putrid animo-vegetable matter, of which there is a constant supply as the unremitting vegetation proceeds. The stratum of atmosphere in contact becomes impregnated with exhalations seldom dissipated by breezes, or rarified by the rays of the sun. In these localities, indeed, during a great part of the year, there are heavy dews at night, attended with a chilling dampness in the atmosphere. The hills at day break being generally canopied with mist which is rarely cleared away till the sun has assumed half of its meridian height. This Cantonment is situated about 16 miles from the range—and, whilst the weather here is cloudless and serene, the hills are generally obscured with watery vapour. I have also observed a remarkable variation of atmospheric temperature. The thermometer being 10 degrees lower in a valley in the hills than it was here at the same period, which being on nearly the same level, the variation most likely depended upon some peculiar constitution of the atmosphere derived from the soil and situation. The hills attracting moisture, and the jungle and brushwood causing the surface to be comparatively cool from its being impervious to the rays of the sun, whilst in the plains and dry sandy soil, which abounds between the hills

and the sea, a large quantity of heat is absorbed—which constantly radiates from the surface so as to render night nearly as hot as day. The original inhabitants of the hills are a diminutive race, with shaggy hair and stunted growth, and bear evidence as to the ungeniality of their natural clime. Those, however, who have been chiefly engaged in the late rebellions, reside at the base of the hills, also in the vallies, and are chiefly of the Ooria cast; they are brave, well formed, much addicted to eating opium, and have very indistinct ideas of the virtues of modern warfare, having a taste for mutilating their prisoners, and having attempted to poison wells in the neighbourhood of camp, with quantities of the bruised root of the Bikh, a species of aconite, enclosed in a net, thereby proving that they were not unacquainted with the deleterious qualities of some of the noxious plants that abound in the hills. Of these there is none more general than nux vomica—which, in particular spots, grows so abundantly—that if, like the upas tree, it could impart its baneful influence to the surrounding atmosphere, the hills would be uninhabitable; and it is possible that they (the hill men,) may have thus succeeded in adding to the monthly returns of sick, although their benevolent intentions were at times undiscovered. It would be difficult to lay down a law as to the salubrity of any particular spot in the hills. As I have observed, that a spot which was considered comparatively healthy one year—became the focus of disease the next; it is also observable, that the fever assumes at times different forms at different positions, for which no plausible analogy can be brought forward.

Causa latet vis est notissima.

It is also a strange anomaly that the hill inhabitants, when removed to any distance from the spot in which they have been born and acclimated, become subject to attacks of fever—although formerly exempt. They seem perfectly aware of this, are very local—and although from their childhood upwards—they study the art of appropriating the effects of others—they only levy black mail in the villages in their immediate vicinity, and seldom venture far into the plains—or from their native spot. The most unhealthy season of the year is during the periodical rains—commonly called the cold season. And former accounts of the insalubrity of this hilly climate have not been exaggerated. But, although in the late Campaigns the troops have penetrated further, and have traversed districts where it was the boast of the hill-chieftain that European foot never trod—the mortality has been small in proportion to the number of sick. Since November 1832, there have been 617 admissions of the fever in the 8th Regiment alone, and 14 deaths—and in the 3d Regiment alone, during the last 6 months, 578 cases have been treated—of which there have been 8 deaths. There are, however, some of these whose constitutions are much broken—and there are others who though temporarily cured—may yet have repeated relapses, and be finally worn out by long suffering, for it is well known that this fever is apt to rivet itself in the constitution and become a protracted source of disease like all other fevers that are attended with the principles and phenomena of periodic movement. I have observed that Europeans suffer more from it than natives—the attacks being more violent and protracted—13 officers have been transmitted sick with fever to the Cantonment during the last 8 months, of these two have died—but in one case confirmed chronic disease of the brain, was the cause of death, and not the violence of the febrile attack. The types of the fever were chiefly the intermittent and remittent—intermittent quotidian being the most prevalent. The disease was generally ushered in with febrile phenomena, at first unconnected with organic disease. The patient complaining of listlessness, universal lassitude with alternate heat and chills—this was soon followed by continued and increased heat of skin, heaviness and pains in the head, with turgidity of the blood vessels of the eyes, irritability of stomach, prostration of strength and vertigo. The bowels were constipated, tongue dry, parched, and covered with a white fur, there was constant thirst, and in many instances the patient soon began to despond and apprehend death. The first attack was generally the most protracted, the skin became hot and dry suddenly, and was seldom preceded by a regular fit of rigors as in common intermittent, the pulse numbered from 100 to 120, and was hard wiry and not easily compressible, and violent pains in the back and extremities were uniform attendants on the disease. In many instances the febrile symptoms soon began to abate—being followed by copious perspiration, diminished thirst, soft pulse, and apyrexia; whilst in others, the febrile attack having become more protracted, the symptoms of organic disease became more apparent, there being evidence of increased phrenitic disorder—such as an anxious expression in the eyes, with a burning sensation all over the orbits, there was constant watchfulness, disturbed rest and falling of the eyelid—the pulse became weak and respiration quick, laborious, tongue covered with a black fur, and there was at times delirium. The above is only a general view of the symptoms, for at a

particular post in the hills, the disease assumed more the form of a bilious remittent, and the liver, and not the brain, became the focus of the disease—and here the symptoms were more mild from the less delicate structure of the organ affected.

The prognosis will generally be unfavourable when, after the first attack has terminated, the body is clammy and only partially cooled, accompanied with restlessness, jactitation, and the peculiar expression of anxiety in the eyes indicating disorder in the brain. When the patient cannot shake his head without excessive pain, when there is a black gummy secretion on the teeth, and when, although there is not general heat of skin, there is a burning sensation in the eyes and head with delirium. It would be difficult to define a distinct diagnosis in this, from other periodic fevers; it will however be observable, that the brain is more frequently disordered; whilst in the bilious, remittent, and other fevers, arising from paludal exhalations, the liver is the organ principally concerned. The morbid appearances were indicative of disorder in the brain—there being congestion, serous effusion in the ventricles between its membranes, and at times a gelatinous effusion between the dura and pia mater, there was also at times an unnatural quantity of watery fluid in the pericardium—congestion of the spleen, and slight marks of inflammation in the stomach and intestines.

The treatment was adapted to the urgency of the symptoms and duration of the disease. Thus in mild cases, in which there were only febrile symptoms without organic derangement, an emetic was useful in lowering the pulse, emptying the stomach, and causing determination to the surface—and if followed by six grains of Calomel and a purging draught, with Quinine or Bark during the apyrexia, the complaint was arrested. But when there was determination to the head, the emetic was not advisable, as it increased the pain and congestion there, from the violence of the retching—and it was therefore better to evacuate the stomach and intestines first by the same dose of Calomel and the draught—and to assist the fever in running its course by saline diaphoretics. If the fever was protracted—and if there were symptoms of disorder in the brain—leeches to the nape of the neck, cold lotions to the head, and a blister might be required—and if the symptoms were urgent and delirium violent, general blood-letting was necessary—as soon as there was an evident remission, Quinine was given to the extent of from 10 to 20 grains daily—and if continued for some days afterwards, it seldom failed in preventing relapses. But as long as there was much thirst, head-ache, and particularly if the tongue was foul and covered with a dark fur, although the apyrexia was evident, Quinine was highly injurious, it increased the head-ache, appeared to lie dormant on the stomach as it did not prevent relapses, and caused much general uneasiness—the only alembic in these cases was to bring the system under the influence of mercury, by prescribing Calomel morning and evening, and by rubbing in Unguent. Hydrargri if necessary. As soon as the gums were slightly affected, it appeared as if a revolution was excited in the system. The mercury might not, perhaps, alone, have prevented relapses—but it afforded a long apyrexia—in which Quinine and other remedies might be given with effect. It was also useful in promoting absorption in those cases, in which there was falling of the eyelid, anxiety, and symptoms of effusion in the brain.

The antiphlogistic regimen was always strictly enjoined, and occasional purgatives and enemas given to prevent any morbid collection in the intestinal canal. I have observed the greatest relief in cases attended with delirium by the application of cold lotions to the head after it was shaved—whilst the feet and legs were constantly soaked with warm water—this being attended with less general heat in the encephalon—the patient becoming collected—and it appearing as if there was a metastasis of the circulation to the extremities, which were formerly cold and cramped. As a specimen of the power and efficacy of this apparently simple remedy I have known instances where a patient labouring under delirium, fainted from the diminished circulation to the brain, and shortly afterwards became perfectly collected and free from all urgent symptoms. Laudanum, camphor, æther, and other stimulants, were seldom required unless the vital functions were much exhausted.

In several cases, when relapses became repeated, the fever having resisted the influence of Mercury and Quinine, there being no organic disease; I have observed that the application of a few leeches, during the cold stage, arrested the progress of the attack; and caused the relapses, if any took place, to be more mild and less obstinate. This may possibly be in some degree confirmative of Dr. Mackintosh's treatment during the cold stage. But I have never used general blood-letting in that stage, except in the case of a European, when from the excessive violence of the fit of rigors, the internal congestion was so great that coma took place, the depletion was small, and attended with relief. Should the fever assume the form of the bilious remittent,

the use of Calomel and purgatives, followed by Quinine, is equally beneficial; with leeches over the region of the liver, if there is pain and fulness there. In conclusion, I have observed a few cases in which the use of mercury, even a small dose of Calomel, would be highly prejudicial, when the patient has been long affected, had repeated relapses, and has symptoms of vascular engorgement in the spleen; the symptoms, nature, and applicable treatment of this occasional sequel of protracted periodic fever have already been so well described by Mr. W. Twining, that a repetition here is unnecessary.

Vizianagram, 12th July, 1834.

SMALL POX AT AVA.

A short account of Small Pox, as it appeared in Ava, in the latter end of December 1833, *with a sketch of the Burmese treatment and opinions of the same, by G. T. Bayfield, Esquire, Madras Establishment, Surgeon to the Resident in Ava.*

The small pox broke out in Ava, about the latter end of December 1833, since which it has been raging with great violence. It first made its appearance amongst the poor and badly fed, and owing to the total want of precaution, it spread in every direction, leaving scarcely a house either in the town or suburbs unvisited. There are generally a few cases yearly about the months of March and April (the commencement of the hot season), but it is only once in seven or eight years, that its attack may be said to be epidemical. In the present instance its visitation is unprecedentedly early and fatal.

The disease appears to be of the distinct and coherent kinds, and I attribute the great mortality, not so much to its original violence as to the mode of its treatment, which is comprised in keeping the patient in a close room loaded with clothes, and in a constant state of perspiration. Their remedies consist principally of charms and prayers, and they have an unconquerable aversion to aperients, and antiphlogistics in every stage of the disease. In cases where the pock is tardy of coming out, or has been checked, a compound of burnt nutmeg, cinnamon, cloves and other aromatics is administered internally, and a paste of the wood of a parasite creeper, called by the Burmese *Kwai-douk*, ground down with spirits, is applied externally, and report (probably of imagination) says with good effect. In cases of great exhaustion, and during the latter stage of the disease where itching is very troublesome, the body is bathed in brandy, or in some other spirits with advantage. No other useful remedies are ever employed, whatever the circumstances of the case may be. The smell of cooking, as well as every kind of noise, but particularly that caused by the use of steel instruments, such as knives, &c., are prohibited in the strictest manner, being considered prejudicial, not only as they disturb the patient's rest, but as possessing some specific and deleterious influence on the disease itself. It is worthy of remark, that many cows have been affected by the disease, and several are said to have died of it. In the ordinary visitation of the disease, April and May are, however, the most fatal months.

In the course of my practice here, which owing to the prejudice of the people, has not been very extensive, and is principally confined to the Resident's suite and followers, and a few of the natives, I have met with two cases of the disease, in subjects bearing the well known cellulated and circular eschar of vaccination. In both it has been very mild, attended with but slight fever previous to the appearance of the eruption, and an entire absence of secondary fever, as well as of every other unfavorable symptom afterwards.

The Burmese, generally speaking, are unacquainted with the properties of the vaccine *virus*. They know the disease in the cow, but never use it as a preventive for the small pox, their confidence in its efficacy having been destroyed by the following untoward circumstance.

In the latter part of the reign of the late King Mendaragyee, the late Mr. Carey, a Missionary, brought up to Court some vaccine matter apparently in a good state, having renewed the pock, at intervals, at different villages on his way up the Irrawaddy. His Majesty, anxious for the safety of his great grand child, the present heir-apparent, gladly embraced the opportunity, and the child was vaccinated. The pock rose in the parts into which the matter was inserted, and at the same time, a crop of pustules, of a similar character, appeared over the body. He recovered from it, but shortly afterwards, took the small pox in the natural way; from which he very narrowly escaped with his life, and now is much marked by it. Such an inauspicious event occurring at the commencement of its introduction and in so high a quarter, has very naturally prejudiced the Court and people against it, and I doubt much whether they would again submit to its trial under any circumstances.

The practice of inoculation with small pox is common, and is said to have been introduced from Arracan; the precise time of its introduction is not known. It is per-

formed by means of a finely pointed silver instrument, in the same manner as common tattooing, the matter being pricked into the skin to the size of a half rupee. The proportion of deaths amongst those inoculated, is said to be never less than one-fifth, sometimes one-third, when the disease is in the neighbourhood at the time the inoculation is performed; but at other times the mortality is very trifling. The Burmese history of small pox, as well as other diseases, and of medicine in general, is most vague and unsatisfactory. It is called the *Ka-ba-na*, or "disease of the world," to which they suppose it common, and therefore consider it natural to the country, and not imported.

Small pox is divided by the Burmese physicians into three classes, these again are subdivided into many more, the particulars of which it would, however, be useless to mention; the erroneousness of the main classification being a fair specimen of the accuracy of the rest. It is classed in the following order:

Wet-thet-Kyouk.
Kyouk-Pyoo.
Kyouk-gyee.

The latter only is the true variolus disease, the first being measles, and the second varicella, and persons are liable to either or all of them once during life time. The treatment is the same in all cases, and the most fatal of the latter is from the 8th to the 11th day. It is considered contagious, and although no useful or rational means of prevention are employed, several superstitious ceremonies are performed to avert it, the most celebrated of which is, sprinkling about the apartment charmed water, whose potency depends on its being taken from an eddy in an uneven bottomed or topsided gourd (called *Boo-lwai-the*). They use no fumigation, and except at the Palace, the children or persons of one house are not restrained from intercourse with those of another in which the disease may be. Faith is their sole reliance, and notwithstanding the death of several of the children of the Princes and officers of State, who might be supposed to be better informed than the people in general, they still blindly persevere in their devotional offering to the "great unseen," and hope for better times always (if unsuccessful), in the firm belief of some informality in their mode of offering, but never that the God of their forefathers is forgetful or incompetent.

Of the total amount of cases, or average amount of deaths, I am unable to speak with accuracy, no public records being kept. I am informed, however, by the physicians and others, that in the milder cases of those attacked, one-third die, and of the present epidemic two-thirds or more have died. The funerals through one gate alone (that nearest the Residency,) have exceeded 4,000, and as there are two others, through which funerals are allowed to pass out of the City, (supposing each to have had a like number) the deaths would amount to about 12,000, and according to the above computation the whole amount of cases would be about 16,000.

The disease has not been confined to Ava alone, but raged with great mortality at Amarapoorah, Tsagain, and surrounding villages, at which places no account has been kept.

SKETCHES OF THE EDINBURGH MEDICAL PROFESSORS.—No. III.

Mr. Liston.

Mr. Liston's name has spread wide over the civilized world, and for that fame he holds himself indebted to a steady quick eye, to a hand that rapidly obeys the directions of the former, and to a general physical organization that keeps the whole bodily and mental faculties in steady unruffled operation, under circumstances that would appal men of less intrepidity. Celsus has words descriptive of what the physique of a good surgeon ought to be, I cannot quote them from memory—but they apply in full force to Mr. Liston. I have seen many good operating surgeons, but none who handle the knife like him, nor any who retain so complete a self-possession, whilst inflicting unavoidable pain and suffering. Mr. Liston commenced practice in Edinburgh, unfriended and almost unknown. But there is no medical skill so likely to bring a surgeon into early repute as bold and successful operations. The reasonings upon which we found our basis of treatment are inappreciable by the unprofessionals, but the cuts of the knife and the event of an operation all men can judge of. When I commenced my medical studies, the ligature of the sub-clavian artery had never been done in Britain successfully—and, I believe, only twice or thrice had it ever been accomplished.

There was a patient in the Edinburgh Infirmary with an aneurism of the axillary artery. After various consultations nothing was done. Mr. Liston in visiting the wards saw this patient, and offered to cure him of his disease if he would leave the Infirmary and put himself under his care. The man did so, and the operation, a tedious and difficult one from the size of the tumour and the consequent displacement of parts, was completely successful. Part of the clavicle was removed, and if I recollect

right, it was found necessary to divide a portion or the whole of the anterior scalenus muscle.

The ligature was put round the artery on an eyed silver probe bent to the proper angle. The man was alive and well when I left Edinburgh in 1827, serving Mr. Liston as a groom.

This operation soon drew the notice of the disinterested part of society and of the profession towards Mr. Liston, and it also excited the envy of the Hospital Surgeons, who formed a party to put him down as a rash inconsiderate operator, fond of displaying his manual skill at the shameful sacrifice of less ostentatious though better surgery. This party was strong in numbers and influcuce, and they did Mr. Liston much injury with the public for a time, but those who had personal opportunity of judging soon changed their opinion, and gradually this prejudice wore away—and, I believe, Mr. Liston is now at the head of surgical practice in Edinburgh: and he is a Surgeon in the Infirmary, where he has an ample field for practising his eminent surgical skill and for communicating it to others.

In the latter particular Mr. Liston is not very happy. Many even deny his being possessed of much scientific acquirements in surgery. They mistake—it is in the ability to teach others that he is deficient. It will not be denied that the possession of knowledge, and the gift to communicate that knowledge, are two separate endowments. Those who best succeed in imparting their own knowledge, and in explaining that of others, are men endued with patient application in the study of theories and first principles. Mr. Liston's talent,—for talent he assuredly has, is off-hand, and jumping to conclusions, catching at a point himself without much mental exertion, he conceives it unnecessary in his lectures to dwell much upon facts, that appear to him incontrovertible and self-evident. Having formed the above opinion of Mr. Liston's surgical knowledge, we are bound to admit that he is a bad teacher, but we will break a lance to maintain that he is a scientific, as well as an eminent practical surgeon. We ought to know, as we have the pleasure of being personally acquainted with him. A writer in the *Lancet*, whose signature I have assumed, perhaps with some presumption, throws an air of ridicule into his account of Mr. Liston's lecturing. The fault in him, lies, I think, where I have placed it. It is not the want of surgical knowledge that makes him a bad teacher, but the want of patience, perhaps of skill to arrange and to elaborate it.

Few Surgeons have been more successful in Lithotomy than Mr. Liston. If I recollect well, he makes his incision into the bladder with a common scalpel. His principles to command success were to make all the incisions freely, so as to ensure a speedy extraction of the stone, without exerting a force likely to bruise the parts, the almost constant cause of fatal terminations to this operation. In one of your late numbers there is a letter of Mr. Liston's, copied from an *Edinburgh Journal*, on the subject of Lithotrity. This is as it should be. Here is a man second to none in the ability to perform the lateral operation—(I do not suppose that Mr. Key, of Guy's, has been more successful) but who gives his meed of applause to an operation that will soon supercede the lateral one in all ordinary cases—and he has himself performed it.

Messrs. Bramley and Campbell have given papers on the Amputations of Nipaul, as performed on criminals without any means being used to suppress hemorrhage. Mr. Bramley writes—"The fact that the bleeding orifices of the largest arteries can be successfully checked by pressure alone, is already known to some Surgeons on the Continent, though I am not aware that it has been taken advantage of by English practitioners." In performing amputation, Mr. Liston never applies the tourniquet, but has a skilful assistant to make pressure on the main trunks of the arteries. In this way less blood is lost, because the venous trunks are less compressed.

Mr. Liston always amputates by the flap method. I have seen him do so below the knee in splendid style. The patient was a boy of about 14, with a scrofulous disease of the ancle joint. We walked from Mr. Liston's house in Queen-street over to the High-street; and diving deep into one of its lanes, and ascending some hundred steps of a stone stairs, we reached the scene of action. I shall never forget the natural and cool way in which the necessary preparations were made, or the confident and encouraging manner in which Mr. Liston addressed his patient. Mr. Mackenzie, anatomical assistant to Dr. Munro, then made pressure over the course of the femoral artery, the boy being secured by other assistants. With a double edged knife Mr. Liston made a flap of the gastrocnemius by plunging it through the soft parts behind the bones and then drawing it outwards. The soft parts on the front of the leg were then divided down to the bone. Next the muscles and ligament between the tibia and fibula were cut through with a battine, and the whole of the soft parts being kept up by a double-tongued bandage, the bones were sawn through in the most beautiful manner. The chief arteries

being tied, the flap was brought over the end of the bones, and secured by one or two stitches, and by straps and bandages. The stump healed almost entirely by the first intention; yet the French Surgeons almost deny the possibility of such an occurrence.

There was a tumour in Mr. Liston's museum, the weight of which I forget, but I know it was larger and heavier than that mentioned by Sir Astley Cooper, as weighing 47 pounds. I have not space left to detail particulars.

I have not yet attempted a description of Mr. Liston's person. He is a tall and very powerful man, of dark complexion. His features are not very regular or pleasing, but they are massive and full of expression. He is yet a very young man, and being no great consumer of the midnight oil, his own lamp is likely to burn for many a long year. He seeks for robust health and mental recreation in the manly sport of fox hunting, in which he is truly an enthusiast. His Grace of Buccleugh can tell that Mr. Liston is sometimes in his right place in the hunt.* I have but two remarks to add regarding Mr. Liston. He has an arm like a sledge hammer, and his hand would cover a leg of mutton.

SCOTUS.

CAMPBELL'S ANOMALOUS CASE OF PTYALISM.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Sirs,—I have just read Mr. Spilsbury's note to you, published in the number of your Journal for May, in which he notices an unexplained connection that would appear to exist between the generative organs in man, and that most potent and most deleterious of medicines, Calomel. I have not been fortunate enough to witness the beneficial effects of the mineral, in similar cases with those alluded to by Mr. S., but as every thing that can possibly tend to the reduction of the quantity of mercury used in medicine is interesting to the world at large, and to the people of India in particular, and as the case of this kind, I am about to mention, has a remote affinity to Mr. S.'s, I will not apologise for troubling you with it.

A stout healthy young fellow, of eight and twenty years of age, was my patient, an European, and an officer in the Company's service, he laboured under a derangement of the liver and bowels, accompanied by the usual low spirits, bad appetite, &c. &c., which we are so much used to see in Indian practice. I prescribed eight grains of Blue Pill to be taken every second night at bed time, and a weak solution of Epsom Salts with infusion of gentian, to follow the next morning. He had taken 4 of the Pills (16 grains) but without any perceptible effect, when he called me to give him some stronger medicines. I recommended a continuance of mild means, and a little patience, taking my leave of him for that time. On my next visit I found my friend (for such he was) spitting copiously, his breath slightly mercurial, and his gums *touched*, he was in good spirits, and a smile played on his countenance. I asked him if he had been taking Calomel, or how it was that his mouth was so sore, and how so suddenly; he very frankly said "the truth is, that I am as much astonished as you are, but *nocte femina advenit*, and hence my salivation. The interview was instantly followed by a copious spitting and a swelling of the gums, as you now see them."

This *fact* is new to me, and it is valuable, any thing that can save a man from *one* grain more than enough of mercury, is an invaluable boon to his constitution, and where it can be properly taken advantage of, it ought.

Your's,

A. CAMPBELL.

Nipal, May 7th, 1834.

SKETCH OF MR. LISTON.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Gentlemen,—The light and characteristic graver of your portrait-taker Scotus, has vividly recalled the images of the dear and illustrious names, which have rendered Edinburgh, what Professor Sedgwick calls it "a Glorious City."

As I hope Scotus will complete a Picture Gallery of "the Professors," I will not poach upon his domain, but will attempt, with your leave, to give a "local habitation" to some reminiscences of the private Lecturers, some of whom are not less known to fame, than the Professors, and our first *subject* shall be ROBERT LISTON.

I could easily give his birth, parentage, and education, but as Surgeons, unlike Poets, are not born such, I will at once take him, "with all his blushing honors, (and numerous imperfections) thick upon him," as he lectured four years ago, in Infirmary

* Vide a number of the *Sporting Magazine*, in which is mentioned Mr. L.'s having in the field sewed up a horrid gash on the Duke's face.

Street. Suppose yourself one of 150 young men, seated in his small lecture-room, watching the preparations being brought in, especially that enormous Sarcocele, weighing 60 lbs., and requiring three apprentices to bring it in, one of their master's trophies. A carriage rattles up to the door, and a tall, rather heavily made man, with a considerable stoop of the shoulders, lounges in among a group of students, chatting and laughing; he makes for the arena, and mounts a *four-legged stool*; you observe his fine neck, and pale, manly, massy features, of which the finely cut firm mouth is characteristic; his bust would please a sculptor, and his friend Joseph has made an excellent likeness of him.

But Heavens, how awkward he is! See how he scrapes the floor with one foot, while the other is cock'd up under the stool, as if to keep him on, and his lower lip is held in his teeth; how he swings from side to side, like an elephant in a cage, but something is wanting; ha! he seizes a *catheter*, (the Aaron's rod which vivifies this rock) he flourishes it right and left, like a broad sword, his lip escapes from its restraint with a smack! and I am mistaken, if you do not receive sound, practical rules of surgery, usefully illustrated, and skilfully reduced to practice by operations, and you will leave him pleased and instructed, in spite of his uncouthness, stammering, and gyrations, on the antipodes to his head.

Mr. Liston is an enthusiast in his profession, and well fitted to inoculate his students, with his own cool, bold, decided spirit. He has been gifted by nature, with what at first would appear an imperfection in a Surgeon, the most enormous hands I ever saw on man, but like the Elephant's trunk, they are capable of the most minute, as well as the most powerful actions, and whether he breaks down a cataract, excises a hip, frees a hernia, or extracts the stone, he is a first rate operator. The success is equal to his despatch; in lithotomy the patient is usually returned to bed in 2 or 3 minutes from the commeneement of the operation, and the deaths out of his numerous operations have been very rare. After lithotomy, he inserts a gum elastic tube into the bladder for some days, to prevent infiltration of urine, in the tract of the wound, which he justly considers a great source of mischief. Light dressings, and the absence of all irritation, are strenuously inculcated by him, especially where union by the first intention is looked for. I think that I hear him characterise "more suo," the proeeedings of the Montpellier Surgeon, described by Mr. Atkinson, who sewed over the surface of the stump *continuously*, &c., to procure "la reunion par premiere intention!" Mr. L. despises medicine, and its professors, as much as he adores surgery, he thinks that,

> One Physician like a sculler plies,
> He gently paddles, and his patient dies;
> But two Physicians, like a pair of oars,
> Quickly waft you, to the Stygian shores.

He was wont to say, that a Physician was like a blind man with a cudgel, trying to separate two persons fighting, as likely to knock the injured man on the head, as the aggressor.

Mr. L. when off his guard, (for he can smile, and pleasingly too when he likes) is rather overbearing and dictatorial, failings which are somewhat cherished, by the subserviency and toadyism of some of his intimates; these private qualities, are apt to be carried into public life, and in consequence, he is not so much respected and admired by his brethren, and the public, as his great talents for his profession would lead one to expect. He is yet young, let us hope that he will "change all that."

Your obedient servant,

EDINENSIS.

ESDAILE'S CASES OF POISONING.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Gentlemen,—If you think fit, oblige me by inserting the following cases of poisoning in your Journal.

I am,

Your obedient Servant,

J. ESDAILE, M.D. C.A.S.

Azimgurh, Aug. 23, 1834.

On the morning of 3d June, six dead bodies were brought into the station, accompanied by six individuals, friends of the deceased, suffering from different degrees of illness. One old woman was in a state of muttering delirium, constantly picking the bed-clothes; her skin and pulse natural, pupils not dilated. Aromatic Spirit. Ammon. and Laudanum were frequently given during the day, and in the evening she was intelligent, and ate her dinner. Two others complained of heat in the throat and stomach, the rest were quite well. The account they gave of their companions' death, and their own illness, was as follows:—They were inhabitants of Berhampore, and formed a party of 12 pilgrims, who had visited Juggernaut and Muttra, in company with another party of religionists, and were on their return home, when the accident befell them at this place. Their travelling companions had

very liberally treated them last night to some sweet sherbet after dinner, soon after, several vomited freely, (the only survivors) and then went to sleep, but in the morning, six of the party were dead, and the whole had been robbed. In several of the dead bodies the face was more swollen than natural in bodies so lately dead, and some had the arms painfully bent, as it were, over the head. In all, the stomachs were distended with a recently taken meal, in which I could not detect any suspicious substance or smell, nor was there any inflammation of the stomach or alimentary canal—and, but for the symptoms of the survivors, I could not have determined the cause of death, though I might have suspected it to be some very active narcotic poison. I had lately been present, when Mr. Burnard examined the numerous bodies, supposed to have been poisoned by Singhera, and I was struck with the similarity of the cases, and suspect it was the agent used in the present instance. I have procured the Singhera, probably so named from its great resemblance to a horn. It is called Nyctanthis by Shakespear, of which I find it is the only species, being the Arbor Tristis; Cl. Diand. Monogyn.

It is a brown wrinkled root externally, dense, and oily, and of a dirty white colour, when cut across, shewing dark nuclei, like elm-wood, and smelling like hemp. The taste is sweetish, and slightly bitter, producing after some time, a tingling, biting sensation on the tongue, which lasts for many hours. It is said to be poisonous in doses of 40 grs. and is used by the natives in ague, in doses of 2 or 3 grs., and by the poor who cannot afford sufficient clothing in the cold weather, it is used as a warm condiment in their food. I gave 5 grs. of it in the evening to a cock, in the morning he appeared little the worse; he then got 15 grs. more, and died in less than half an hour. There was not a trace of inflammation throughout the alimentary canal, indeed it was rather blanched in appearance. This drug seems to act through the nervous system, and in small doses may prove a stimulant in nervous diseases, like nux vomica, in paralysis.

A few days after the above occurrence, two men were brought in, who had been found upon the road; one was in a state of stupor with pupils much dilated, the other was in a state of excitement, talkative, and incoherent in his speech, with glistening eyes; they both recovered by the exhibition of leeches to the temples, cold affusion on the head, purgatives, and enemas. On the previous day, a person had joined company with them, and rested along with them during the heat of the day, and supplied each with a handful of *Suttoo* from his bag, and in the evening they were found senseless, and stripped to the skin. From the symptoms I suppose Datura to have been given to them. Poisoning, like Thuggie, is followed as a profession, but the arts are distinct, the Thug holding the less daring poisoner in contempt. The poisoner, like the Thug, insinuates himself into the company, and good will, of the unwary traveller, who eats with his murderer, goes to sleep, and never again awakes.

These miscreants do not attempt to conceal their victims, but leave them stark naked, where they lie.

You say in No. V., that Orfila and others have succeeded in perfecting processes for the detection of the vegetable narcotics; you would confer a favour on the profession, by publishing the details which I have not yet seen.

HOSPITAL REPORTS.

SUMMARY OF MR. RALEIGH, FOR AUGUST, 1834.

The month of August, as indeed the whole autumnal season in Bengal; is characterized by a hot, moist, state of atmosphere, subject to incessant sudden variations of temperature; occasioned by the frequent heavy fall of rain, accompanied by severe gusts of wind; rapidly succeeded during the day, by periods of intensely brilliant sunshine; the effect of which is, to occasion copious exhalation from a rich alluvial soil, exuberantly covered by vegetable and animal productions, in every imaginable condition. The nights close and damp, usually becoming chilly on the approach of morning, are saturated with vapour arising from the earth and objects on its surface, and which in situations, uncleared of jungle or rank vegetation, has a peculiarly unpleasant and unwholesome odour, and in its concentrated state highly deleterious effect on the human constitution, as is too frequently experienced by those, who venture to travel through uncultivated and overgrown districts. This state of climate, has ever been considered eminently favourable to the propagation of disease, particularly fever of various description, but especially of that character, which from the peculiarity of its phenomena, has been termed "*Bilious Remittent*," or "*Congestive*."

In Hospital practice, it must necessarily accrue, that a great proportion of the cases of fever, are not brought under treatment until the disease has made considerable progress, but even in private practice, from the insidious approach of congestive fever, and the absence of those symptoms,

looked for by the unpracticed observer, as necessary concomitants of fever, namely, *high arterial action, with heat and dryness of skin;* it frequently happens that the patient's ailments are at first attributed to some trifling occurrence, such as "*a cold*," being "*bilious*," or some other popular appellation is assigned to the indisposition; for the relief of which the favourite domestic specifics are employed, until too late it is detected, that the sufferer is labouring under the most fatal form of fever, to which the resident of a tropical climate is subject. I have been led to this remark, from having witnessed several instances this season, in which this unfortunate mistake has taken place; it should not therefore escape the recollection of the non-medical friends of the sick, that a *hot dry skin*, and a *quick pulse*, are not necessary attendants on all fevers; on the contrary, that the formidable autumnal, or congestive fever, is characterized rather by an oppressed, than an over-excited state of the vascular and nervous systems—the symptoms, of course, differing in each individual case, and requiring a corresponding modification of treatment.

Of the "Bilious Remittent Fever," several cases have come under my charge during August; they have, for the most part, been well marked instances of the disease, and not, as in the preceding month, so often of a mixed nature, or rather a continued fever, with exacerbations at particular periods; the disease has in most instances assumed a formidable aspect for a time, but has certainly had a much less fatal tendency, than for several years past; the deaths from fever in the General Hospital during the last month, have been compared with former corresponding periods very few.

Case of Bilious Remittent Fever.—Mrs. M. æt. 27 years, a robust, tho' not corpulent woman, two years resident in India, had been unwell for four or five days, during which time she thought she could have had *no febrile symptoms*, as her skin had been *quite moist*. She had taken several doses of salts, which had produced numerous evacuations, yet she appeared to be getting worse. On the 20th of July, 8 o'clock P. M. she came under my charge, when her symptoms were as follow—a dull, intense head-ache, much pain across the loins, and aching of the extremities, nausea, and irritability of stomach, the tongue thickly coated with white fur, the face having a bloated appearance, heavy eye—the abdomen distended and tender at the epigastrium, frequent sighing, and complaint of great oppression at the precordia, sensation of debility, and incapability of exertion; the bowels had been several times acted on during the day, the stools *watery* of a pale brown colour, without admixture of bile, pulse 110, moderate in size, the skin communicated a scalding sensation to the touch, but was *moist;* she was very restless and anxious.

Bled to ℥xxiv—Head shaved, and cold applied—Calomel ℈i.—statim.

21st, A. M.—Passed a bad night, but her skin is cooler, head-ache and sense of oppression considerably relieved, no vomiting through the night, passed four watery stools—12 leeches to the Epigastm.—R. Calomel, gr. vi.—Pulv. Antim. gr. iij.—every four hours—Cooling beverage only allowed.

P. M.—Several stools in the day, of a blackish colour, much oppression at the precordia, skin hot, pulse 100, some head-ache, with restlessness—12 leeches to the Epigastm—R. Calomel, gr. xij.—Ipecac. P. gr. ij.—Hor. Som.

22d, A. M.—Had a very restless night, and became less feverish towards morning, but the skin continues hot, pulse quick, and she has head-ache, with oppression, and tenderness at the epigastrium, one *dark green* stool of thicker consistence than the former ones, has been voided in the night—Pulv. Scammon. Comp. (P. L.) 3i.—Mustard poultice applied to the Epigastrium—viij leeches to the temples.

P. M.—Four dark green evacuations, with thick mucous like flakes, the paroxysm of fever has returned, the skin hot, and pulse above 100—Calomel gr. xij.—P. Ipecac. gr. ij.—Hor. Som.

23d.—No stool in the night, skin still hot, but the head is free from pain, and the breathing easy, the abdomen soft, and admits of pressure without inconvenience.

R. Pulv. Scammon. C. 3i.

P. M.—Slighter exacerbation of fever this evening—several dark green stools.

Rept. Cal. et Ipecac.—Hor. Som.

24th, A. M.—Three fluid green stools in the night, skin still hot, pulse 100.

Calomel, gr. vj.—Pulv. Antim. gr. iij.—Ext. Colocynth Comp. gr. v. every four hours.

P. M.—Four stools of a more healthy bilious colour, little increase of heat this evening.

25th.—Passed a better night, pulse 90, skin moist, still warm, no evacuation from the bowels.

Pulv. Jalapæ Comp. 3i.

Produced three greenish brown dejections.

P. M—No decided accession of fever to night.

Pills repeated.

During the 26th and 27th, the symptoms appeared gradually to abate—under a con-

tinuance of mercurial purgatives, by the morning of the 28th, copious ptyalism was established, the skin continuing hot and moist, and pulse small and frequent.

Pulv. Jalapæ Comp. 3i.

Produced several evacuations, tinged with fresh bile; as the patient felt faint, two table-spoonsful of a mixture of Carbonate of Ammonia were administered occasionally—sago or arrow-root as diet.

29th.—This morning the skin is *cool* and moist, pulse 90, small—she is very low and faint, appears to have been tolerably composed, and free from fever through the night, bowels open.

R. Quinine Sulph. gr. iiss.—Magnes. Sulph. 3j.—Inf. Rosar. ℥iss. every three hours.

After this date, she had no return of fever, continued to take the quinine with occasional purgatives—and when the evacuations appeared deficient of biliary secretion, a little blue pill, and colocynth at night;—her convalescence was tardy, but she completely recovered by the end of August. I need scarcely mention, that her diet was very cautiously and gradually improved.

Inflammatory Fever.—Simple inflammatory fever, in a few instances, attended by inflammation of the chest;—and cases of Intermittent Fever have constituted a large proportion of the admissions. In the latter, from a deficiency in the supply of quinine, I have substituted the liqr. arsenicalis in doses of ten drops, three times in the day: or in some cases, every three or four hours—with no great degree of satisfaction, and in several instances, with no advantage whatever.

Case of Fever, accompanied with affection of the lungs.—W. W., a tall thin seaman, admitted on the 12th of August, stated that he had for a week past suffered from a severe cold and pain, with sense of weight, great oppression at the chest, and difficulty of breathing, which obliged him to keep the erect position; his countenance was livid, he had very frequent cough, with scanty frothy expectoration, a hot dry skin, and quick hard pulse, bowels costive.

Bleeding to Syncope—P. Jalapæ C. 3j. directly—Tartar Emetic Solution every two hours.

13th.—During the night he had been unable, from urgent dyspnœa, to lie down; his pulse still frequent, and bowels not sufficiently acted on.

Rept. V. S.—Pulv. Purg.—Cont. Solution of Antimony.

14th.—Medicine operated freely; he can now assume the horizontal position with comfort, but the cough is troublesome, and febrile symptoms continue.

xij Leeches to Epigastrium—Continue Medicine.

15th.—All the symptoms declining, cough still urgent, pulse quick and skin warm.

viij Leeches to the precordia—Medicine continued.

He continued to take the solution with an occasional purge up to the 18th, when he was quite well.

R. E., a seaman, about 30 years of age, sent to hospital on the 10th of August; had several days suffered from fever, with severe pain at the chest, and oppression of breathing, he had occasional cough, but no expectoration, a blister had been applied over his chest, and he had taken medicine without benefit. The countenance was distressed, skin hot, pulse frequent, and tongue foul, bowels costive.

Bleeding to faintness—Calomel, Colocynth, and Antimony Pills followed in six hours by P. Jalapæ C. 3i.

11th.—Febrile and chest symptoms much relieved.

xij Leeches over the chest—Tartar Emetic Solution every two hours—R. Pil. Hydrarg.—Ext. Col. Comp. āā gr. vi.—P. Antim. gr. iv.—Hor. Som.

12th.—Much improved.

Remedies continued.

Under the same medicine he progressed, and on the 17th was discharged cured.

Hæpatitis.—During July I remarked in my last report, that the admission of patients labouring under inflammation of the liver, had been unusually large; since that period, I have had no fresh instance of the disease, under treatment.

Cholera.—The only case of Cholera I have admitted, was on the 31st of the month, the subject, a lad of about 17 years of age, in the collapsed stage of the disease, died shortly after his arrival at the Hospital.

Dysentery.—The cases of dysentery have been numerous, and many of them of the most severe description; in two instances, constituting what may be more appropriately termed, *hemorrhage* from the whole surface of the mucous membrane of the colon. This frightful state of disease not unfrequently presents in sailors who have been drinking very freely for a long time of the inferior description of liquor, procurable at their places of resort, careless of dysenteric symptoms under which they have suffered often for weeks. In such instances the usual treatment for dysentery would be of no avail, and unless the bleeding be speedily checked, the patient must die. Restoration from such a state,

can only be hoped for, where no *destruction* of the lining membrane of the intestine has actually taken place; in most cases unfortunately it is found to have sloughed throughout the whole extent of the large gut and presents a convincing example of the strictly *local seat* of dysentery. The mucous, and other coats of the colon, having undergone the most horrible ravages, from the rectum to the cœcum; where the ulcerative process usually ceases, and a mere blush of inflammation extends itself for a short way up the ilium, gradually fading as it ascends.

Independant of its administration by the stomach, the use of the superacetate of lead in the form of injections, is not an uncommon practice in dysentery; but I have always seen them prescribed in small quantity, thrown into the *rectum*, with the intention of producing effect, more through the system, than as a local application—but taking into consideration, the condition of the parts, when labouring under such a state of disease, as I now allude to; it must appear evident, that the absorbent powers of the involved structures are suspended, and that it would be extravagant to anticipate any advantage from the use of the remedy with such an object. Whilst, however, I should place no confidence in the virtues of the superacetate of lead thus employed, I feel satisfied, that I have witnessed decided benefit, from the *local application* of cold injection of the superacetate of lead and opium in such quantities as to wash over the *whole inner surface of the colon*, and thus act as a local astringent; and in cases of hemorrhage from the colon, in conjunction with medicines administered by the mouth, I usually prescribe an enema every three or four hours, composed of 3ss. of the superacetate of lead, and two or three grains of opium dissolved in lbj. or lbiss. of cold water or congee water, to be pumped with some force, up the colon—the body being in the horizontal position* until the bloody or bloody fluid stools cease to be voided. I have seen several instances in which the practice has been successful, where I believe the patients would have died, had the lead injections not been so used. In cases which have terminated favourably, I conceive the bleeding could only have been an *exudation* from the surface of the mucous coat, without breach of continuity; for in all instances where the sloughing or ulcerative process has taken place, I conclude the patient is certain to die; as however, we can never form a correct estimate of the extent to which the disease has proceeded, it appears to me advisable to act on the probability of the parts being in a condition favourable to the application of the experiment, which under any circumstances will not be attended with injurious results.

Case of Dysentery, 3d of August, A. M.—G. L., a sailor, æt. about 36, who had for five or six months been strolling about the Calcutta Bazars, drinking largely of country spirits, and had for several weeks had "purging on him," was admitted the General Hospital on the preceding evening—during the past night, he had voided as many as twenty stools of fluid blood with floating particles of white matter, the belly was distended and tender, and he had occasional internal spasmodic pain. The tongue had a thick yellow mucous coating, the pulse was frequent and moderately full, skin wet, the countenance cadaverous, and he was feeling very faint and weak.

R. Calomel gr. vi.—G. Opii. gr. ss. every four hours.

R. Plumb. Sup. Acet. 3ss.—G. Opii. gr. ij.—Cold congee water lbi. as an enema, three times in the day.

A cup of arrow-root and wine now and then.

P. M.—Has only passed five or six stools during the day, of a less bloody nature than those voided in the night.

Med. and Injects. contd. thro' the night.

4th.—Stooling very frequent, through the night, and early morning of bloody fluid, with large clots of dark bloody mucous, and white shreds, pulse frequent.

Cont. remed.

P. M.—Had many evacuations in the day, similar to those last night, stomach has become irritable, he is very low—Rept. the Injects.—R. Calomel, gr. x.—G. Opii. gr. i.—Plumb. Sup. Acet. gr. v.—at six, and ten o'clock, P. M. a little wine and water occasionally.

5th.—No change for the better, stomach irritable, and stools very frequent, of bloody fluid, with black clots, and shreds, the belly tender on pressure—Blister over the belly—Rept. the Injects. every four hours—R. Calomel, gr. x.—G. Opii. gr. i.—Plumb. Sup. Acet. gr. v. every four hours, in the form of a powder.

P. M.—Had no vomiting, but the stools are of the same description and equally frequent—skin wet, and pulse quick.

Cont. remed. thro' the night.

6th.—During the night, he has passed sixteen stools of *brown fluid*, containing

* I find that in the dead subject, lbj. or lbiss. of fluid pumped up the rectum, with a patent syringe, or even thrown up with the common syringe, the body lying flat at the time, passes up to the cœcum.

very little fluid blood, but some dark clots of mucous and coagulated blood.

Med. and Injects. cont.

P. M.—Twenty brown fluid stools, with scanty mixture of blood have been voided since the morning visit, he has had occasional vomiting, pulse 100, skin wet, he is very much exhausted.

Remed. continued.

7th.—Had more than twenty stools, of nearly pure fluid blood, during the night; he continues to vomit now and then, pulse quick, and countenance very unfavourable.

Cont. Med. and Injections—wine, sago, &c. &c.

P. M.—Stomach very irritable, frequently purged of fluid, great part of which is blood, he is sinking rapidly.

Blister over the Epigastrium—Tinct. Opii. 3iss—Mist. Camp. ℥ss—at eight o'clock P. M.

Died this night.

Post-Mortem Examination.—On the abdomen being laid open, the colon was observed to be distended, and had a dark mottled appearance, through its peritoneal covering; on cutting open this intestine, it was found to be much, and irregularly thickened, from deposition of fibrin between its tissues, and exhibited a rough lumpy surface. The mucous coat, from the anus to the cœcum, was abraded by sloughing, and presented a series of extensive ragged ulcerations, alternately of a black, and yellow colour, and thus having a spotted appearance—when floated in water, the mucous coat was observed, hanging in shreds at the edges of the ulcers, or sloughs; in fact, the whole internal structure of the gut, now presented a ragged flocculent surface. The process of ulceration abruptly terminated at the caput coli; the mucous lining of the ilium from this point was inflamed, and the redness proceeded up the small gut, *gradually fading* as it ascended, for about two feet distance, where it was no longer detectable, and the lining membrane, assumed a natural appearance.

Case 2d.—J. H., a sailor, unattached to a ship, for some months, and during that period living in the Calcutta bazars, stated on his admission, on the evening of the 1st of August, that he had been suffering from constant purging of "bloody slime," with much straining, for a week; he had taken some purgative medicine. His belly was full and tender, in the course of the colon, particularly at the transverse portion—pulse very quick, and tongue foul.

Bled to faintness—R. Calomel, gr. x—Ipecac. gr. iv.—Hor. Som. and low diet.

2d, A. M.—During the night, he has had from forty, to fifty, copious bloody fluid stools, which pass off unconsciously at times, the belly is tense and tender, skin warm and dry, pulse 120.

Bleeding repd. and 12 leeches over the right iliac region—a cold Inject. of Lead and Opium, every four hours.

R. Calomel, gr. x—Ipecac. gr. iv—Opii. gr. ss. every four hours.

Flannel dress, and patee.

P. M.—Only two stools in the day, but they are similar to those of last night.

Remedies contd. through the night

3d, A. M.—Frequent evacuations of nearly pure blood, during last night, pulse rapid, and small, he feels weak, and is despondent.

Calomel, gr. vi—Ipecac. gr. ij—Opii. gr. ss. every three hours.

Lead Injection, every four hours—a cup of warm sago occasionally.

P. M.—Only four stools to-day, of brown fluid, having a very small proportion of blood, the man feels better, and his pulse is slower.

Remedies continued regularly.

4th, A. M.—His extremities are very cold, and the skin wet and clammy, pulse rapid, fourteen stools, of brown fluid, tinged with blood, in the night.

P. M.—Twelve stools during the day, containing less blood.

Med. and Injects. contd. every four hours.

5th.—Pulse firmer, and slower, twenty stools in the night, of fluid more deeply tinged with blood than those of yesterday.

Med. and Inject. continued.

P. M.—Stooling frequent, and very bloody, pulse 120, soft and full.

R. Calomel, gr. vi—Plumb. Sup. Acet. gr. v—Opii. gr. i. every three hours.

Injections continued.

8th, A. M.—Eighteen stools in the night, of brown fluid, having very slight admixture of blood, feels more comfortable, and the pulse is not so rapid.

P. M.—Twelve fluid evacuations, in which I can distinguish no trace of blood, gums slightly affected by mercury.

Remedies contd.

7th, A. M.—Nine brown stools in the night, without blood, pulse 100—R. Pil. Hydrag. gr. vi.—Plumb. Sup. Acet. gr. v.—Opii. gr. v—ter die.—Cont. the Injects.

P. M.—Only four stools this day, pale brown fluid.

8th.—Four stools in the night, free from blood, ptyalism copious—R. Plumb. Sup. Acet. gr. v.—G. Opii. gr. i—ter die—Repeat the Injects.

9th.—Slept well, passed four brown fluid stools, in the night, free from abdominal pain, pulse 100.

P. M.—Four stools in the day.

11th.—Skin moist, pulse soft, tho' frequent, six stools in twenty-four hours,

devoid of blood—some tenderness at the right iliac region.

Lead injections and medicine omitted.

R. Ipecac. Pulv. gr. ij.—Pil. Hydrag. gr. iij.—Ext. Cinchonæ, gr. iv.—ter die.—vi leeches on the right iliac region.

12th.—Only two stools, of thin fœcal matter, the right iliac region, still tender—Rept. vi. Leeches—Cont. Med.

From this period, counter-irritation was established over the tender part of the colon, by emetic tartar—and his bowels regulated by mild medicine, he continues weakly.

Case 3d.—Mrs. M., a soldier's wife, who had been exposed to cold, and wet, for several days and nights, in consequence of the native boat in which she had embarked to proceed to the upper provinces, having been swamped in a gale of wind; was brought to hospital in a deplorable condition from incessant purging; the evacuations were bloody fluid and ran off involuntarily, her pulse was quick, and feeble, skin wet, and cool, and she was much exhausted.

A little warm sago and wine, was given now and then.

Calomel gr. v.—Plumb. Sup. Acet. gr. iij.—G. Opii. gr. ss. every three hours.

Cold lead injection lbi. every four hours.

Mist. Camphor ℥i. occasionally if faint.

This treatment was persisted in during three days, with gradual amendment; on the fourth day, the stools were quite free from blood, her mouth was at this time slightly affected by mercury. The medicines and injections were now omitted, and Dover's powder, Hyd. c Cretâ, and P. G. Kino taken for another week, when the bowels became rather indolent, and an occasional mild aperient was necessary—the patient perfectly recovered.

Accident.—The only surgical case worth noticing, which has come under my superintendance this month, has been in the person of an officer of a ship, who whilst giving directions for tightening the rigging attached to the bowsprit of the vessel, was struck down by the jib boom, which broke under the force of the sailor's pulling, and came with great violence across the officer's legs, occasioning a *compound* fracture of the left thigh bone, just above the condyles, and a *comminuted* fracture of the tibia, and fibula of the right leg, with much injury of the parts surrounding the ankle joint, and whole leg, besides considerable bruising of various parts of the body.

He was immediately placed on Mr. Amesbury's fracture bed, by which the fractured thigh was extended to, and maintained at its natural length—the mischief done to the right leg, was such, as to occasion much inflammation, suppuration, and threatening of gangrene; which rendered it necessary to amputate the limb, below the knee, on the twelfth day, after the receipt of the accident; for several days subsequent to the operation, his situation was very precarious, but he is now doing remarkably well, and there is every probability of his recovery. As the case is of interest, in several respects, it will be more fully detailed, in a future report.

Fractured Fibula.—Mr. ——, a respectable looking man, of about 30 years of age, but of most dissipated habits, was a year since brought to the General Hospital, with a very formidable looking injury, of the right ankle—the fibula was distinctly felt to be fractured, about one and a half inch above the joint, but there was more swelling, and deformity, than could be accounted for, merely from this circumstance.

After leeching, purging, and the application of cold lotion, for four days, the limb was placed on, Mr. Amesbury's apparatus; the patient, from this period, quitted his bed, walked about the hospital grounds on crutches, and was allowed occasionally, to visit his friends in Calcutta, whither he proceeded in a palanquin. After a month, the apparatus was taken off, and the formerly fractured bone, having firmly united, means were adopted to restore the mobility of the joint, which was soon accomplished, and the perfect use of the limb recovered; the outer ankle, however, continued to appear larger than natural.

A short time since, the man was again sent to the hospital, when at the point of death, from apoplexy, brought on by excessive drunkenness and exposure to the sun: after his death, I examined the ancle, which had been previously injured, and found the true nature of the accident, to have been, a fracture of the fibula, one and a half inch above its lower articulation, with rupture of the ligaments, and partial separation, of the end of the fibula, from the tibia, allowing the extremity of the former, to pass someway down, on the outside of the astragalus.

This is a good example, of the advantages deriveable from the use of Mr. Amesbury's apparatus in cases of fracture, or dislocation below the knee, had this man's accident been treated in the common way, he would have been confined to his bed, for six weeks, or two months, instead of *four days*, to the probable impairment of his general health. I know of an instance in Calcutta, in a gentleman of active pursuits,

who, through many years residence in India, enjoyed uninterrupted health. He was unfortunate enough to fracture his fibula, a short way above the ankle, which was treated in the usual manner, by a professional man of experience; the period of confinement to his couch, was necessarily long, during which his health suffered so much, that he was obliged to proceed to sea, for its restoration—the limb is by no means perfect, he walks with lameness.

W. Raleigh, *Genl. Hospital.*

TRANSLATION.

VEGETABLE ALKALIES.

Cinchonia.

(Translated from Berzelius "Traitè de Chimie," for the India Journal of Medical Science.)

Continued from p. 343.

We obtain *cinchonia* by precipitating by potash the mother water of the sulphate, washing the precipitate, and drying and dissolving it in boiling alcohol; from which it is deposited on cooling. When after successive evaporations the alcohol gives no more crystals, the mother water contains but the quina. By a second crystallization we obtain the cinchonia free from all mixture of quina. It crystallizes in quadrilateral prisms, terminated at the summit by two oblique faces. Its taste, which is at first weak and which becomes afterwards strong and permanent, resembles that of quina. Cinchonia restores the blue colour of litmus paper reddened by an acid. It loses nothing when heated, and does not enter into fusion until it begins to be decomposed, in which case a part of the cinchonia is sublimed, without alteration, in brilliant needles. It is almost insoluble in cold water, and requires to dissolve it 2500 parts of boiling water. It is much less soluble in alcohol than quina. The solution has the flavour of cinchona bark. Æther scarcely dissolves it at all, and it is not soluble but in a very small quantity in the fatty and volatile oils, and in the oil of petroleum; by the help of heat it dissolves in the oils better than when cold, and crystallizes on the cooling of the solution.

Cinchonia has been analyzed by Brande, by Pelletier, and Dumas, and by Liebig. Brande asserts that this alkali contains no oxygen. When he dissolves it, in a dry state, in boiling oil of petroleum, and adds potassium to the solution, it is not decomposed; the metal is not oxydized, and the cinchonia deposits, on cooling, upon the shining drops of potassium. By dry distillation it gives no water, and when heated in chlorine it does not absorb this gas; but at the temperature at which it (the base) decomposes, it forms hydrochloric acid, without any disengagement of hydrogen. Brande has found that cinchonia is composed of 78·4 of carbon, 14·6 of nitrogen, and 7·5 of hydrogen.

Pelletier and Dumas on the other hand give the following composition: 76·97 of carbon, 6·22 of hydrogen, 9·02 of nitrogen, and 7·79 of oxygen; which reduced to the nearest atomic numbers, makes 39 of carbon, 39 of hydrogen, 4 of nitrogen, and 3 of oxygen. From whence the atom of cinchonia weighs 3878·59, which is exactly the quantity of cinchonia that saturates the weight of an atom of sulphuric acid, and makes the oxygen of the base equal to that of the acid.

According to the experiments of Liebig, cinchonia is composed of 77·81 of carbon, 7·37 of hydrogen, 8·87 of nitrogen, and 5·93 of oxygen, which makes C^{20}, H^{22}, N^2, O, and gives 1942·051 for the weight of the atom. 100 parts of cinchonia absorb 22·698 parts of dry hydrochloric acid gas, which gives the atomic number 2005·1, and proves the accuracy of the first number.

The two vegetable alkalies extracted from the cinchona bark, offer a strong analogy in the greater part of their physical and medical properties; an analogy, which is in some sort explained by their composition. It is evident that one of the two bases has but one atom of oxygen, while the other contains two, provided that the radical of cinchonia (admitting that it is formed as said above) contains two atoms of hydrogen less than the quina.

But when we calculate the composition of cinchonia after the formula C^{29}, H^{24}, N^2, O, or on the supposition that the two bases have the same radical, we arrive at the following result. 78·175 of carbon, 7·658 of hydrogen, 9·053 of nitrogen, 5·114 of oxygen, which certainly agrees better with the result of direct experiment, than that extracted from the formula of Liebig, as stated above. The weight then of an atom becomes 1955·54. We get a result much less satisfactory when we calculate the composition of quina, after the formula that Liebig has given for cinchonia. The numbers which result from the formula of Liebig, shall be given hereafter, in a comparative table, containing the different results of the analysis of vegetable alkalis.

The salts of cinchonia are distinguished by their bitter taste which bears an analogy with that of the kinic salts. Only neutral and basal are known. They are precipitated, like the salts of quina, by the oxalates, the

tartrates, and the gallates, and also by the infusion of galls. The neutral salts are composed of one atom of base, and one atom of acid, and the capacity of saturation of cinchonia is 5·15.

Hydrochlorate of cinchonia. It crystallizes readily in brilliant arborescent needles. It fuses above 100°, dissolves easily in water and alcohol, and with difficulty in æther. It forms with the deuto-chloride of mercury a double salt, which precipitates in very fusible white flakes.

Hydriodate of cinchonia. It is little soluble in water; nevertheless it can be obtained crystallized, by leaving the hot saturated solution to cool. It forms with the deuto-chloride, and cyanide of mercury caseiforme precipitates, which according to Caillot, consist of double salts, composed of the hydriodate of cinchonia, and one of these mercurial salts.

Sulphate of cinchonia. 1. *Basal Sulphate.* It crystallizes in prisms rhomboidal at the base, and terminated by two facets or straight cuts, at the summit. It is but little soluble in water; at the ordinary temperature, it requires for its solution 54 parts of water. It dissolves in $6\frac{1}{2}$ parts of spirits of wine of 0·85, and $11\frac{1}{2}$ parts of anhydrous alcohol. Heated above 100°, it melts like wax, and at a temperature still higher, it becomes red and is decomposed. The crystals contain 4·865 per cent of water.

2. *Neutral Sulphate.* It is very soluble in water, and its hot concentrated solution gives on cooling large regular crystals, which affect the octo-ëdrical form, with a rhomboidal base, but which for the most part are not perfect. It is easy to cleave *(cliver?)* parallel to the lowest axis, and the face of the cleavage is smooth and polished. At the temperature of 14° this salt dissolves readily in 0·46 of its weight of water. It is soluble in 0·9 parts of alcohol at 0·85, and in equal parts of anhydrous alcohol; æther does not dissolve it at all. In dry air it loses its transparency, and effloresces by the aid of heat; in which case it parts with 15·518 per cent of water. Baup determined the properties of these two salts. They become phosphorescent when heated, like the salts of quina.

When we prepare the sulphates of quina and cinchonia on a large scale, we obtain an incrystallizable mother water, which retains much of the sulphate of cinchonia, mixed with a phosphate of lime, proceeding from the animal charcoal employed in the purification of the solution, and coloured by a foreign matter supposed to be resinous. Henry and Plisson have made many attempts to separate this matter. To effect it, they have employed different kinds of charcoal, hydrate of alumina, oxides and salts of lead, and oxide of tin: all these attempts were abortive. But the infusion of gall nuts, precipitates the bases; oxalate of ammonia, and ioduret of potash produce the same effect, and by treating the precipitate by acetate of lead, the bases dissolve in the state of acetates. The elder Vaillant, evaporates the mother water to dryness, and after having melted the residue with one-third of turpentine, he treats it with boiling water, acidulated with hydrochloric acid, which dissolves the bases. He then boils the clear yellow liquid obtained by this process, with animal charcoal, precipitates the bases by ammonia, re-dissolves them in sulphuric acid and crystallizes the sulphates. The portion that will not crystallize with sulphuric acid, should undergo a new process. Guibourt mixes the mother water, the Sp. G. of which is 1·14 with 1 or $1\frac{1}{5}^{\text{th}}$ part of a solution of muriate of soda of the Sp.G. 1·14; the liquid on boiling furnishes a brown deposit; the solution remaining colourless, or nearly so, and ammonia precipitates the base, mixed only with a small quantity of phosphate of lime. The brown precipitate is dissolved in distilled water, and the filtred ammoniacal solution is added to it, until the excess of acid of the bisulphate of cinchonia, dissolved in the brown liquid, is neutralized; it forms a new brown precipitate, and a liquid scarcely coloured remains, from whence ammonia precipitates the cinchonia pure. The second brown precipitate does not dissolve entirely in water; that portion which does dissolve may be treated as the mother water. By following this process Gnibourt was able to procure 12 drams of sulphate of cinchonia from a kilogramme of mother water; but he did not obtain any considerable quantity of sulphate of quina. On the other hand Henry the younger, and Plisson, state that they have obtained from it, beside these, a portion of quina.

Hyposulphate of cinchonia. It is prepared like the corresponding salt of quina, to which it bears a great analogy.

Nitrate of cinchonia. It agrees on all points with the salt of quina. But the oleaginous drops, in consolidating under water, form straight prisms placed obliquely upon the base, and the two opposing faces of which have a pearly lustre. It is easy to cleave them parallel to these faces.

Phosphate of cinchonia. It resembles the nitrate, and dissolves easily in water.

Arseniate of cinchonia. It is very soluble, and crystallizes with difficulty.

Carbonate of cinchonia. Cinchonia attracts carbonic acid from the air. To

obtain the carbonate, a soluble salt of cinchonia is precipitated by an alkaline carbonate.

Oxalate of cinchonia. It precipitates in the form of a white powder; dissolves in an excess of acid, and in boiling water and alcohol.

The *tartrate of cinchonia* is analogous to the oxalate, but dissolves better in water.

Acetate of cinchonia. On saturating acetic acid with cinchonia, an acid liquid is obtained, which gives on evaporation a granulated neutral salt. By spontaneous evaporation a gummy mass is left which is the acid salt.

Gallate of cinchonia. This is a precipitate which dissolves in boiling water; the solution becomes opaline on cooling and deposits granulated, translucid crystals.

Kinate of cinchonia. The solution of this salt evaporated to the consistency of a syrup, crystallizes at the end of some days in acicular, interwoven crystals having a silky lustre. It is very soluble in water.

Of late years cinchonia, and still more quina, have become celebrated by their being employed in medicine. Experience seems to have shewn that cinchona bark owes its efficacy to these salifiable bases, as some grains of the salt of one of these bases, have the same effect, as several drams of the bark. It is believed that quina is more efficacious than cinchonia; and in general the preference is given to the effloresced bisulphate of quina. The salts of these bases are at this time thought to be medicines of such importance, that the greater part of the cinchona bark brought by commerce is employed in its preparation. Seven years had not yet passed away after the discovery of these bases, when 100,000 ounces of the sulphates were annually prepared in Paris alone. Pelletier and Caventou, who discovered them, received in 1827 from the Academy of Sciences of Paris, the Montyon prize decreed to those who bring to perfection the healing art.

The great demand for and high price of this medicine have been the cause of many attempts at adulteration. It is found mixed with boracic and margaric acids, sugar, manna, gypsum. On incinerating a portion of the salt upon a leaf of platina, the boracic acid and gypsum are readily discovered. The presence of sugar and of margaric acid may be equally well detected on the ignition of the salt, by the odour peculiar to those bodies. Margaric acid can be separated also by caustic alkali, which dissolves it, and abandons it on the addition of an acid. Sugar and manna are dissolved by a small quantity of water and are found on evaporating a drop of this water. The salt of quina being dearer than that of cinchonia, the latter is sometimes mixed with the former. To discover this fraud, the salt is decomposed by caustic ammonia, and the precipitated base being dissolved in æther, the cinchonia is left undissolved.

I should here mention that it has been pretended that salifiable bases analogous to the preceding, but destitute of medicinal powers, have been discovered in several species of bark known in commerce under the name of cinchona bark. I shall speak further of them in treating of the vegetable alkalies whose existence is not sufficiently demonstrated.

SELECTIONS.

Case illustrative of the Spontaneous Evolution of the Fœtus, with Remarks.

By R. B. Malcolm, M. D., Physician to the North-Western Dispensary, &c.

I received a message from Mrs. T., a midwife, about ten o'clock P. M. November 14, 1833, requesting my immediate attendance on a case of difficulty.

The midwife informed me that the patient was at the full period of utero-gestation; that it was her third pregnancy; and that she had been in labour since three o'clock A. M. of the same day. She was attended in the former part of her labour by an ignorant old woman, who, finding a part presenting the nature of which she could not ascertain, had, by forcibly pulling at it, endeavoured to deliver her patient. She at length succeeded so far as to bring down the arm and shoulder, when, not being able to effect the entire delivery, the assistance of Mrs. T. was requested. Upon ascertaining the true nature of the case, she immediately sent for my father-in-law, Dr. Thatcher. He was engaged at the time, and I was requested to attend.

The uterine contractions were of a very powerful description. Upon examination by the abdomen, the uterus was felt firmly contracted on the body of the infant. The patient complained vehemently of a violent rending pain in the region of the uterus, synchronous with each contraction of that organ. The arm, which was the left one, the shoulder, and a portion of the thorax itself, in a conical wedge-like form, was already expelled through the external opening. The shoulder was pressed forward under the arch of the pubis. The pelvis was completely filled with the remainder of the extremities and body of the fœtus. A large fold of the umbilical chord likewise presented, which was flaccid, and in which no pulsation was perceptible. The membranes had been ruptured a considerable time; the *liquor amnii* was completely discharged; the perinæum, and soft parts

generally, were in a very favourable condition, relaxed, moist, and dilatable; the perinæal tumour was perfectly developed, being formed by the pressure of the thorax of the fœtus; the pelvis, as I had reason afterwards to judge, was well formed and capacious.

The uterine contractions were so powerful and frequent,—the resistance to the passage of the child so great,—and the cries of the patient so violent, as to render me apprehensive of rupture of the uterus, or, as a minor evil, of laceration of the perinæum.

I instantly administered a large and powerful opiate,—150 drops *Tinct. Opii.*—to suspend the uterine contractions, and thus allow an opportunity of introducing my hand, if practicable, which, indeed, I much doubted, and of turning in the usual manner; or, at any rate, to allow time for the evisceration of the fœtus, if turning could not be accomplished.

The primary action of the laudanum was to a peculiar degree stimulant. The contractions were redoubled in strength and frequency. A large portion of the thorax was soon protruded. I now became certain that any attempt to introduce the hand, or to reduce the presenting part, could not be successful, owing to the powerful and almost incessant contractions of the uterus, and to the pelvis being so completely filled with the body of the child.

I became seriously apprehensive of rupture of the *uterus*, and had I possessed the necessary instruments, should, considering the death of the infant as certain, have eviscerated it, and thus have terminated the case with safety to the mother. As, however, no opportunity was afforded for obtaining these, I carefully guarded the perinæum with my left hand, and, with considerable difficulty, introduced two forefingers of the right into the *vagina*, for the purpose of ascertaining the exact position of the child. I had the good fortune to find both feet, near the *foramen externum*, jammed together between the lower part of the *sacrum* and the external opening, in contact with the *vagina*. From the position of the feet, I judged that the breech was resting at the top of the *sacrum*, or to one side of it, and the head consequently at the anterior part of the pelvis. I gradually brought the feet forward, and was at length enabled to accomplish the delivery. The feet, breech, body, remaining arm, and lastly the head, being adapted to the pelvis, as in an ordinary footling case, without the hand of the operator being introduced, or the presenting arm returned, into the *vagina;* in short, without turning having been had recourse to. The perinæum, although much stretched during the delivery, remained entire.

The fœtus, which was a female, appeared to have been dead a short time; the cuticle was perfectly sound; the left arm and half of the thorax were greatly swollen, and of a dark purple colour. The infant measured nineteen inches in length; the circumference of the head at its widest part, from forehead to occiput, was twelve inches; it weighed five pounds two ounces imperial weight.

From the above measurement and weight, it appears more probable that the infant was at the eighth month than at the full period of fœtal life, as supposed by the patient. It must, however, be admitted, that female children of no larger dimensions are occasionally produced at the completion of utero-gestation.

I may here state, that this patient made an excellent recovery without a single unpleasant symptom.

The profession have long been in possession of descriptions of a natural operation, occasionally, though rarely, occurring in presentations of the arm or shoulder, which has received the titles of "*spontaneous evolution*,"—"*spontaneous expulsion*,"—and "*spontaneous version;*"* and of this process, various and very contradictory accounts have been given by different authors.†

Dr. Burns, in his work on the Principles of Midwifery, states, that Schœnheider was the first who noticed this phenomenon, but that Denman first described it to British practitioners.

Dr. Denman supposed, that, by the vigorous and long-continued action of the uterus, the feet or breech are forced into the pelvis, and that the presenting arm or shoulder gradually receded into the cavity of the uterus,—the case afterwards terminating as an ordinary breech or footling presentation. According to him, the ascent of the arm or shoulder was considered an *essential part* of the process, and took place *during the powerful contraction of the uterus.*

Dr. Douglas, of Dublin, published a pamphlet on this subject, in which he impugns the accuracy of Dr. Denman's description; denying the possibility of the presenting arm *ever* receding into the uterus when in a state of contraction, or, indeed, that it can ever, having once protruded, be replaced by the unaided efforts of the uterus. According to his theory, the breech or feet are forced, by the action of the uterus, into the pelvis; and, finally, expelled through the external opening,—the arm which originally presented continuing throughout the

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* Denman, Gooch, and Murat.

† Denman, Gartshore, Martineau, Boer of Vienna, Herder of Weimar, Douglas, Kelly, Gooch, &c. &c.

process in its former position outside the parts.*

Dr. Gooch, in a very scientific paper contained in the 6th volume of the Medical Transactions of London, supports the theory of Dr. Douglas, and relates a case in confirmation of his view. He attended this case personally, and he has noticed every important particular with great accuracy.

Dr. Gooch's case resembles in many points the one I have just narrated, with the following important exceptions: "The patient was at her full time. It was a first labour, and the child was large."—"The pelvis," also, "was not unusually spacious."

Dr. Kelly, of Newtown Swords, near Dublin, attempts to overturn the view taken by Drs. Douglas and Gooch, and to support that of Dr. Denman, in so far as the fact of the recession of the presenting arm is concerned. According to him, however, this occurs not during the *contraction*, but, on the contrary, during the *relaxation* of the uterus. The breech having been forcibly propelled into the pelvis during the contraction of the uterus, the arm recedes into the cavity of that organ, immediately upon its relaxation, by a kind of spring, caused by the elasticity of the body of the child.†

Dr. Burns supports the opinion of Drs. Douglas and Gooch, although he does not state that he ever witnessed a case of this description. Indeed, he says, that in Glasgow, where there are more than 202,426 inhabitants, he could not learn that more than two cases of spontaneous evolution had *ever* happened.‡

Such are the contradictory views of eminent authors regarding this rare and interesting phenomenon. Many may imagine "that it signifies little whether, in the spontaneous evolution, the arm goes *up* or *down;* yet whenever nature surmounts an obstacle by means so preferable to those employed by art, the exact way in which she succeeds is an important object of inquiry."§ Perfectly agreeing in the correctness of this remark, I venture to bring the above case, with the annexed remarks, before the profession, being convinced that, "at this time it is impossible to say what influence a minute and accurate knowledge of this process, its causes, its mechanism, and the way to facilitate it, may have on our future practice in arm presentations."*

It appears to me that the only method of arriving at a correct knowledge of these desirable points of information, is by the faithful narration of every case immediately connected with the subject, by those practitioners who may happen to meet with such, so as in time to form an accumulation of facts bearing on the question;—the peculiar rarity of the occurrence itself rendering of importance the narration even of a solitary case.

It is highly probable that, had the case above related been left to the unaided efforts of nature, supposing rupture of the uterus not to have occurred, that spontaneous evolution, as described by Drs. Douglas and Gooch, would have happened, in which case the feet would have protruded before the breech, and the case been completed as already described.

It is hardly necessary to caution my readers against trusting, in the present state of our information on the subject, to the spontaneous evolution of the fœtus, in preference to the ordinary and more active practice recommended in the arm presentations. "If the arm and shoulder protrude far, the pains are strong, and the thorax presses hard on the perinæum, it will be right to wait and watch for a little time; beyond this, whoever suffers a knowledge of this rare fact to discourage him from turning in arm presentations, would be guilty, I think, of criminal irresolution."†

71, *York Place, Nov.* 14, 1833.

* An Explanation of the Process of the Spontaneous Evolution of the Fœtus, with some Remarks, intended to induce an inquiry, whether the usual mode of Delivery be the more eligible in Arm Presentations. By John C. Douglas, M. D., &c. Dublin. Second edition, enlarged. 1819.

† Essay upon the Spontaneous Evolution of the Fœtus. By John Kelly, M. D. 1816.

‡ Principles of Midwifery. By John Burns, M. D. 8th edition.

§ Gooch, Med. Transactions, 6th volume, page 246.

TRANSFUSION.

Physiology and practical medicine are deeply indebted to Dr. Blundell for his ingenious researches concerning transfusion. Having, in the course of his extensive obstetrical practice, witnessed many distressing deaths after hemorrhage when the flow of blood itself had been arrested, he conceived that by the transfusion of human blood the exhausted energies might be recruited.

Before performing this operation on the human subject, he performed a series of experiments on animals,‡ which form a most valuable contribution to medical science. From these experiments it appears that after respiration has ceased, and the abdominal muscles are relaxed, little time

* Ibid. page 247.

† Gooch, Med Trans. vol. vi. p. 247.

‡ Blundell's Physiological and Pathological Researches.

elapses ere an animal becomes irrecoverable by the process of transfusion. Dr. Blundell, however, succeeded in reviving by transfusion a dog which had ceased to respire during five minutes. He also nourished a dog three weeks by the mere transfusion of blood into the external jugular vein, having in this period injected nearly eighty-four ounces of blood from other animals of the same species.

Dr. Blundell's experiments on the transfusion of blood from animals of different species are quite consistent with those of Prevost and Dumas. He concludes that the blood of one genus cannot be substituted, indifferently and in large quantities, for that of another. Dr. Haighton had transfused some ounces of the blood of a sheep into a dog, without producing dangerous symptoms; but several dogs which might have been revived after copious hemorrhage by the injection of blood from animals of their own species, died when considerable quantities of human blood were substituted for that lost by bleeding. Dr. Leacock had also previously published similar facts in his Thesis in 1817. The experiments of the older transfusers, and those of Dr. Harwood, however, shew that small quantities of the blood of animals of some species may be introduced into the circulation of animals of certain other species without occasioning death, though the operation is generally followed by unpleasant consequences.

From Dr. Blundell's experiments, it also appeared that blood might be received into a cup and passed through a syringe without being thereby rendered unfit for the purposes of life, though it appeared to undergo some slight deterioration. Practical medicine is thus indebted to Dr. Blundell for reviving the only reasonable application of the operation of transfusion which has yet been proposed,—viz. to replenish the system in cases of severe and sudden hemorrhage, when the larger vessels have been drained of blood, and death is imminent. These cases most frequently occur in obstetrical practice, when from the partial separation of the placenta, or imperfect contraction of the uterus, and other similar accidents, sudden and violent hemorrhage hurries the patient to the brink of the grave. When great quantities of blood have thus been lost, though the hemorrhage has ceased, the pulse is generally quick and thready, the face becomes Hippocratic, the animal heat is greatly reduced, jactitation supervenes, and stimulants and food are frequently rejected; the patient rallies for a moment, only to sink into deeper collapse, and often little chance of recovery remains. Though in some extreme cases of this kind the patients have been known to struggle through, they remain long afterwards in a state of miserable weakness, suffering from diarrhœa, dyspepsia, and distressing nervous maladies, and the constitution not unfrequently receives a shock which is ultimately fatal. Generally they have no such respite; and, at this last crisis, when life seems about to ebb away, Dr. Blundell proposes to replenish the system by transfusing blood from a healthy man.

For this purpose Dr. Blundell has invented an apparatus which he has denominated an impellor, consisting of a syringe and tubes, and another called a gravitator. Dr. Blundell has contrived to impel, by this instrument, blood rushing from an artery into the venous system of an animal for twenty or thirty minutes, during which period nearly all the blood in its body must have passed through the apparatus. Yet the animal did not appear to suffer materially in consequence of the operation. Care ought to be taken to prevent the entrance of air or clots into the instrument or tubes, and the blood ought to remain as short a time as possible in the basin. Performed by a cautious and skilful surgeon, the operation is simple and not attended with great danger, and is certainly justifiable in cases of extreme collapse from loss of blood.

Since Dr. Blundell has revived this operation, it has not unfrequently been performed for the relief of persons sinking from excessive hemorrhage. Among the earliest and most earnest of its supporters, Messrs. Waller and Doubleday are distinguished, and to their fearless support the degree of credit which the practice has attained is in a great degree to be attributed. Other surgeons in this country and on the continent have since successfully performed it, and evidence has at least been given that the dangers attending it have been exaggerated.

In the present state of our knowledge, however, transfusion ought never to be performed excepting when all other remedies have failed, and the danger has become extremely great. So many hidden dangers are discovered by experience, that prudence is one of the chief signs of wisdom, and rashness of ignorance and folly. An astute practitioner will be careful also not to expose a practice of such moment to unmerited reproach, by employing so powerful an agent in cases in which a favourable termination is, without its aid, still within the legitimate limits of hope.

When the operation is decided upon, Dr. Blundell is of opinion that a moderate transfusion only is necessary to restore the equilibrium of the trembling balance, which vibrates with the patient's fate. What is the average quantity of blood required for this purpose has not yet been determined by experience; but, in the absence of such a test, Dr. Blundell's opinion is of the

utmost value. He thinks that half a pint or a pint of blood "may be considered a very ample supply," and feels persuaded that many females have sunk from uterine hemorrhage, who would not have died could they have retained the last ten or sixteen ounces of blood which they lost.

The syringe and basin invented by Dr. Blundell, and improved by various instrument-makers, (Weiss, Reid and Scott, Lanudy) should be used in this operation, care being taken that it is perfectly clean, air-tight, free from rancid oil, or any other impurity. One or two persons should be ready to supply blood from the arm, and, if possible, individuals not likely to be much disturbed by the operation should be selected for this office. The arm of the patient should then be prepared. The vein into which it is proposed to transfuse the blood, should be laid bare by an incision with a scalpel. When this vessel is fully displayed, a probe should be passed beneath it at the lower portion of the incision. A small opening should then be made with a lancet in the vein immediately beyond the probe, of sufficient size to admit the beak of the syringe or the extremity of the tubule which is to be inserted in the operation. The whole apparatus should be warmed to the temperature of the human body, and the various joints should be adjusted with the utmost care, so that the operator, having confidence that no air can be admitted into the apparatus, may proceed with caution, but with decision, when transfusion is commenced. These preliminary arrangements concluded, the arm of the person who is to supply the blood should be bound up, and a free incision having been made into the vein, the blood should be permitted to flow into the brass basin attached to the extremity of the syringe. As the blood accumulates in the basin, it should be absorbed by raising the handle of the syringe, and should then be propelled onwards through the tubule attached to it. When the air has all been expelled from the tubule, and blood unmingled with any bubbles of air issues from it, the beak should be inserted into the vein, and blood should be constantly drawn up from the basin and propelled into the vein, not more than one ounce and a half of blood ever being permitted to accumulate in the basin. This process should be steadily performed, with a calm and unembarrassed mind, the operator watching the expression of the countenance and the state of pulse.

In the extreme feebleness to which the vital action of all the tissues is reduced in cases of severe hemorrhage, it is desirable that the supply of blood should be very gradual, lest the action of any vital organ should be impaired by sudden congestion of its tissue. The heart is especially liable to this danger; and Dr. Blundell advises that, if unpleasant symptoms occur after two or three ounces of blood have been transfused, the operation should be suspended for a moment, and a certain interval permitted to elapse, during which the patient may recover. When these symptoms have passed away, the operation may be resumed. A few ounces of blood may be sufficient to save a patient from immediate death, and Dr. Blundell thinks that even four or five ounces may sometimes accomplish this; but if the secondary consequences of severe hemorrhage are to be avoided, and a more rapid restoration is desired, these happy results cannot be anticipated with propriety, unless a more copious supply be administered. The syringe to which a tubule and basin are adapted is much to be preferred to the syringe invented by Dr. Blundell, and also to the gravitator. The use of these latter instruments will, we think, be entirely superseded by the excellent apparatus which may be procured at several of the instrument-makers' establishments.

[Dr. J. P. Kay, *in Cyclopædia of Practical Medicine, part* xxi. *April*, 1834.

ON THE MORTALITY OF TROOPS IN INDIA.

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The return for 1826 is rendered peculiar by the number of deaths from disease and wounds by the enemy, as also the invalided for wounds and disease in the wars in Ava, Arrakan, and at Bhurtpore, &c.

As to the number treated, and which exceeds the strength by 43.623, it is certain that the whole of the troops were not sick during the year—and, therefore, the number of admissions into hospital has been caused by the repeated readmissions of men who, from drunkenness or predisposition, &c. had relapsed, or been subject to other diseases. No men are dismissed hospital till perfectly recovered and fit for all duties.

Invalided and sent for England for change, &c. in

1826,	..	379	or 4.7 per cent.
1827,	..	113	1.3
1828,	..	112	1.3
1829,	..	55	.6
1830,	..	23	.2
1831,	..	23	.2
1832,	..	38	.5
Total,	..	743	or 1.2

Proportion of loss by invaliding per cent., ... 1.2
Do. do. by deaths, .. 5.7
Total loss by deaths and invaliding per cent. .. 6.9
} for the seven years.

COMPARATIVE RETURN of the Diseases and Deaths, &c. among His Majesty's Troops employed in the Bengal Command, from 1826 to 1832, both years inclusive.

Years, ...	1826.		1827.		1828.		1829.		1830.		1831.		1832.		Seven years, from 1826 to 1832, both inclusive. Mean strength, 60,904.				
Strength, ...	7976.		8761.		8916.		8680.		9520.		9095.		7956.						
Diseases.	Treated.	Died.	Treated.	Died.	Treated.	Died.	Treated.	Died.	Treated.	Died.	Treated.	Died.	Treated.	Died.	Total treated.	Total died.	Proportion of deaths to tot. strength per cent.	Proportion of deaths to treated per cent.	Proportion of deaths per cent. of particular diseases to the gen. mortality.
Fevers, ...	6786	234	4936	103	4838	94	5371	173	4368	131	3687	114	3425	79	33410	928	1.5	2.8	26.8
Hepatitis, ...	393	32	497	34	505	35	588	57	467	22	411	39	432	36	3293	255	.4	7.6	7.3
Dysentery, ...	2399	228	2134	159	2047	170	1870	131	1558	96	1409	104	1083	95	12500	983	1.4	7.8	28.2 } 30.5
Diarrhœa, ...	1444	19	1006	18	890	12	660	6	565	2	469	12	392	11	5426	80	.1	1.5	2.3 }
Pulmonic,* ...	531	21	478	24	482	22	564	20	439	20	511	27	584	28	3589	162	.3	4.8	4.6
Venereal,† ...	1184	3	2338		2559	5	2853	6	1713	1	1882	2	1437	4	13966	21		.1	.6
Cholera, ...	370	160	452	129	630	167	577	126	190	41	297	50	104	16	2620	689	1.1	26.3	19.8
Ulcers, ...	606	4	628		485		475		358	1	275	1	271		3018	6		.2	.2
Rheumatism, ‡	500	3	540	1	568		603	4	651	8	548	10	546	6	3956	32		.9	.9
Ophthalmia,§	287		425		630		616	1	530		702		476		3666	1			
Other diseases,	1998	70	3005	54	3114	44	2668	51	3198	40	2563	34	2537	36	19083	329	.5	1.7	9.5
Total, ...	16498	774	16439	522	16728	549	16849	575	14037	362	12753	393	11287	311	104527	3486	5.7	3.3	100.

* *Pulmonic.*—Of the 162 deaths under this head, (pulmonic,) 65 were from *phthisis pulmonalis*, being as 1-10th per cent. to main strength, and as 1.9 per cent. to general mortality.

† *Venereal.*—Of the 21 deaths under this head, (venereal,) 4 were of fevers; 2 dysentery; 1 cholera; and 1 *ulcus phagedenicum;* others in scrofulous and cachectic subjects.

‡ *Rheumatism.*—Of the 32 deaths under this head, (rheumatism,) 2 were of fevers; 3 hepatitis; 5 dysentery; 1 diarrhœa; 3 cholera: 1 apoplexy; 2 aneurism; 1 dropsy. In 2, metastasis to the brain took place; 1 ramollissement of the brain; 1 of exhaustion from large collections of purulent matter in different parts of his body. The 10 others were in long and protracted cases occurring in old soldiers, with great visceral disease, exhaustion, and debility.

§ *Ophthalmia.*—The fatal case under this head, (ophthalmia,) occurred from excessive intoxication.

ABSTRACT OF DEATHS from Diseases under the general term of other Diseases.

	1826	1827	1828	1829	1830	1831	1832	Total.
Phlegmon et abscessus,*				1	3			4
Phrenitis,		3	1	3	1			8
Cynanche tonsillaris, &c.		1					1	2
Bronchitis,							1	1
Carditis,		1	2	1				4
Peritonitis,							1	1
Gastritis,	1	1	2	1	1	1	3	10
Enteritis,	6	1	2	7	6	5	2	29
Splenitis,	3	5		1	4	4	2	19
Cystitis,			1					1
Variola,		1	2					3
Erysipelas,			1			1	1	3
Epistaxis,	1						1	2
Hæmorrhois,†					1			1
Apoplexia; *Coup de Soleil*,‡	29	21	21	18	4	6	4	103
Paralysis,§		1		2	2	3		8
Dyspepsia,‖		2	1		3			6
Epilepsia,		1		2	1		1	5
Tetanus,	2							2
Colica,			3	2				5
Hydrophobia,		1					2	3
Mania,¶				1			1	2
Atrophia,							1	1
Anasarca,	8	3		1	3	3	1	19
Hydrothorax,	1	1			2			4
Ascites,	1	3	3	3		2	3	15
Physconia,				1	1			2
Scrofula,**						1	1	2
Morbus coxarius,	1							1
——— cordis,		1						1
Icterus,			1	2	1			4
Contractura,††					1			1
Hernia humoralis,‡‡				1			2	3
Obstipatio,			1		1		1	3
Aneurisma,		1	1	1	2	1	1	7
Tumores alii,				1				1
Hernia,§§					1		1	2
——— strangulata,	1							1
Prolapsus ani,							1	1
Fistula in perinæo,	1							1
Subluxatio,	1							1
Vulnus sclopetorum,	12		1			1	1	15
——— incisum,				1		1	1	3
Contusio, or concussio cerebri,		2	1	1	2	1		7
Ambustio,	1	1						2
Fractura,‖‖		2				4	1	7
Morsus serpentis,	1	1					1	3
Total, ..	70	54	44	51	40	34	36	329

Head-Quarters, Simla, 7th June, 1833.

[Dr. Burke *in Edin. Med. & Surg. Jour. April*, 1834.

* Of these, two died of psoas abscess, and one of abscess of the knee-joint.

† Died of anasarca.

‡ These were principally from excess in ardent spirits and exposure to the sun.

§ Of these, three died of apoplexy, and one of *concussio cerebri*.

‖ Of these, two were killed by falling from the roof of the hospital; one leaped off, and the other flung himself off, during a paroxysm of *delirium tremens*.

¶ Of these, one died dropsical, and the other in consequence of sloughing in the sacrum and ham, with effusion in the head.

** Died of diarrhœa, with disease of mesenteric glands.

†† Admitted thus, but died of fever.

‡‡ Of these, one died of diarrhœa, one of apoplexy, and the other of scirrhus.

§§ One of these died of psoas abscess. ‖‖ Of cranium, and generally from accidents.

JOHN HUNTER.

"It has been a trite, but, I believe, most unfounded complaint, that genius is neglected, and that men of talent and information are precluded from opportunities of exertion and display by favouritism, monopoly, or other obstacles. Within my own experience, the difficulty has always been to find talent for the place, not opportunity for the talent. This, indeed, is natural, genius being rare, while fit occasions for its exercise are of constant occurrence. Genius will never be neglected by the public, unless it neglects itself: it must not disdain the humble alliance of industry: how can it expect encouragement, unless its existence be manifested by performances? The chemist can apply tests for latent heat, but what criterion is there for latent ability? The surest evidence of superior talent is, that it forces itself into notice in spite of adverse circumstances; that it makes a road where it finds none. Such, no doubt, would have been the case with John Hunter, even if he had not enjoyed the advantages already specified. He had that insatiable thirst for knowledge which is the surest mark of a master-mind; which, in such minds, supplies the want of external stimulus and opportunity. When we see him coming from the north, at the age of twenty, a raw uneducated youth, and entering into competition with well-trained and superior minds whom the prizes of a great metropolis never fail to attract, we must ascribe his brilliant success, not to his external advantages, which were certainly considerable, but to his superior mental endowments and the extraordinary industry with which he employed them; to that indefatigable industry, which would have brought distinction and fame to the possessor of even moderate talents. Consider the state of medical science when John Hunter appeared on the stage. There were giants on the earth in those days; Albinus, Haller, Camper, Dr. W. Hunter, Munro, Cullen, Pott, and the members of the French Academy of Surgery. Mr. Hunter was pre-eminent among such men. He appeared grand even when those around him were great.

"Some have lamented Mr. Hunter's deficient education, his ignorance of languages and books: I think unreasonably. From his brother, who was intimately versed in the literature of his profession, ancient and modern, and from other well-informed men, his contemporaries and fellow-labourers, he could learn in the easiest way all that had been and thought in other times and countries. His whole life was spent in dissection, observation, experiment, and reflection: how could he have been better occupied? So precious are the fruits of his inquiries into all the actions and sufferings of organized beings, that we should not be willing to part with the least of them for a whole load of scholastic erudition and book-learning.

"It is instructive to observe the course which Mr. Hunter pursued in his early studies, and which he followed throughout life with undeviating constancy. Without wasting time on the opinions of lecturers and writers, he resorted at once to nature; to the source from which the masters of our art have derived their knowledge, from which lecturers and writers must draw their information, unless they should be contented, as too often happens, with copying from others. Having reached London at the beginning of the anatomical season, he immediately entered the dissecting-room; and we find him in the following spring at Chelsea Hospital, with Cheselden. He would not take his knowledge at second-hand, but was determined to see with his own eyes, and to examine every thing for himself. He was incessantly occupied with the great volume of nature; appealing ever to those pure springs of knowledge which she pours out with unsparing hand at the bidding of her industrious worshippers. No one could have said with greater truth, Juvat integros accedere fontes atque haurire".—Mr. Lawrence *in London Medical Gazette, April* 1834.

A GENERAL BILL

Of the Burials, within the City of London, and Bills of Mortality, from December 11th, 1832 *to December 10th,* 1833.

Diseases and Casualties of the year.

DISEASES.			
Abscess	131	(Intermittent or Ague)	13
Age & Debility	2952	(Scarlet)	481
Apoplexy	442	(Typhus)	100
Asthma	1264	Fistula	3
Cancer	105	Gout	53
Childbirth	275	Hemorrhage	42
Cholera	1150	Heart diseased	145
Consumption	4355	Hernia	29
Constipation of the Bowels	26	Hooping Cough	1040
Convulsions	2140	Hydrophobia	4
Croup	151	Indigestion	9
Dentition or Teething	473	Inflammation	2607
Diabetes	6	Bowels and Stomach	499
Diarrhœa	19	Brain	236
Dropsy	860	Lungs and Pleura	548
On the Brain	860	Influenza	138
On the Chest	100	Insanity	142
Dysentery	5	Jaundice	55
Epilepsy	8	Jaw, locked	6
Erysipelas	82	Liver, diseased	302
Fever	530		

Measles.....	524	Unknown Causes	887
Miscarriage ..	20	Still-born	934
Mortification..	241		
Paralysis	212	CASUALTIES.	
Rheumatism ..	37	Drowned	108
Scrofula.....	19	Died by Visitation of God	39
Small-pox	574	Excessive Drinking ..	5
Sore Throat & Quinsey	57	Found Dead .	8
Spasm.....	79	Killed by various accidents	169
Stone & Gravel	19	Murdered	4
Stricture	16	Poisoned.....	6
Thrush.....	109	Suicides	55
Tumor	43		
Venereal.....	6		
Worms.....	2		

Buried { Males ..... 13,319 } Total
{ Females..... 13,258 } 26,577

Of the number buried were—

Still-born	934	50 & under 60,	2412
Under 2 years of age.....	6261	60 & under 70,	2551
2 and under 5 years.....	2805	70 & under 80,	2043
5 & under 10,	1145	80 & under 90,	802
10 & under 20,	970	90 & under 100,	107
20 & under 30,	1700	100	3
30 & under 40,	2225	101	1
40 & under 50,	2615	102	1
		103	1
		104	1

Decrease in the burials reported this year, 2029

Executed this year within the Bills of Mortality 4, none of which have been reported to have been buried as such.

[The Bills of St. Luke's, Chelsea, have reached us in a separate form: they appear to be drawn up with care; and we shall probably notice them on an early occasion.—Ed. Gaz.]—*London Medical Gazette, April* 1834.

STATE MEDICINE IN GERMANY.

To the Editor of the Medical Gazette.

Sir,—The following is an abstract of Professor Wagner's paper, to which I alluded in my letter of last week. It is considerably condensed from the original, but I think nothing material is omitted.

I am, Sir,
Your obedient Servant,
W. Cummin, M.D.

Great Russel-street, March 24, 1834.

Proceedings of the Practical School of State Medicine in the University of Berlin, during the Summer Semester of 1833, *by* Dr. Wagner, *Professor and Stadt. Physikus.*

The number of students who attended this course amounted to thirty-four; among whom were several doctors of physic and other licensed practitioners, most of them anxious to prepare themselves *practically* for the physicate examination. The number of cases submitted to us for medico-legal inquiry was 129,—almost every one of them adapted for the instruction of the class. Reports, written out and argued—some of them in much detail—were severally drawn up on those cases.

A good deal of other business also was allotted to the students; for example, they had the opportunity of opening many bodies which did not absolutely require forensic investigation; these were the bodies of suicides, drowned persons, and of individuals who had been poisoned with sulphuric acid, &c. The chemical research was conducted in the latter cases, as well as in some inquiries connected with medical police—the adulteration of articles of food and medicine, for instance, by Dr. Gusserow: to him, and to Mr. Baerwald, the apothecary, who favoured us with the use of his laboratory,—we have to acknowledge ourselves deeply indebted.

Of the 129 medico-legal cases, 113 related to living people, 15 to persons found dead, and there was one case of poisoning with arsenic. Of the investigations on the living, 94 were concerning bodily injuries or ailments, and 19 had reference to the state of the mind. Among the former, we were called upon to determine whether certain individuals, who were arrested for debt, were able to endure the severity of imprisonment?—whether others were fit to be brought up for trial, or to be removed from their homes? and whether certain persons were well enough to perform the duties of their respective offices? &c. Several of the alleged ailments in these cases turned out to be fictitious—either altogether feigned, or whatever was really amiss was grossly aggravated: most of them were absurd complaints about chest affections, pains in the limbs, head aches, and piles. Where positive bodily injury had been inflicted, we were required to give our decision whether it came under that class denominated by the law injuries of a grievous nature, or whether (within the meaning of the criminal code) it involved a hazard of life, or was likely to entail a permanent mischief on the constitution or the limbs.

Among the remarkable cases of this kind which came before us, was the following one of attempted abortion. A young woman, seven months gone with child, had employed savine and other drugs, with a view to produce a miscarriage. As these had not the desired effect, a strong leather strap, (the thong of a skate) was tightly bound round her body. This, too, availing

nothing, her paramour (according to his own confession) knelt upon her, and compressed the abdomen with all his strength: yet neither did this effect the desired object. The man now trampled on the girl's person while she lay on her back; and as this also failed, he took a sharp-pointed pair of scissors and proceeded to perforate the uterus through the vagina. Much pain and hemorrhage ensued, but did not last long. The woman's health did not suffer in the least, and pretty much about the regular time a living child was brought into the world, without any marks of external injury upon it. It died, indeed, four days afterwards; but its death could not be traced to the violence inflicted on the mother's person: all the internal organs appeared normal and healthy.

Three cases of violation (stuprum puellæ immaturæ) were submitted to us. The subjects were children of from three to eleven years of age. Positive signs of actual violation could not be made out; but that the attempts had been made was quite clear. In one case, a venereal infection had been communicated.

In a couple of divorce cases, the husband was in one instance charged with having a venereal taint in his constitution, but it could not be proved; and in the other, the wife, who was already advanced in years, was ascertained to be unfit for one of the ends of matrimony, from peculiar malformation, or want of developement of sexual organs.

Among the cases which involved inquiries into the state of the mental faculties, fifteen were of a civil, and the other four of a criminal nature. The former related chiefly to the ability of managing property, and the removal of guardianship where recovery was alleged to have taken place. In one of these instances the individual was deaf and dumb. The criminal inquiries were concerning persons who had usurped nobility, resisted the lawful authorities, or committed homicide under circumstances which made it questionable whether they were responsible agents.

In our medico-legal examinations of the dead, we met with two cases, which had terminated fatally, in consequence of fractures of the skull, with extravasation of blood into the substance of the brain. In another instance, several injuries had been inflicted on the integuments of the head by a blunt instrument, but without any apparent mischief to the bones of the cranium. The parts got well in the course of a few weeks, and no disturbance of the intellectual faculties had been observed. But all of a sudden the patient became comatose, and died in a few days. On examining the cavity of the head, there was not only found a deposition of pus between the skull and the dura mater, but beneath the latter such a quantity of purulent fluid effused, that the left hemisphere was completely compressed by it, and reduced to an ash-coloured substance, but the right hemisphere and cerebellum were in a normal state.

In a child that had been run over and killed, the spleen and left kidney were crushed, and in consequence much blood had been effused into the abdomen and cellular substance about the kidney. No external injury, however, except a very slight excoriation, was observable on the body.

We met with but a single case of infanticide; yet that one served to afford us ample opportunity for examining the various tests employed in those investigations.

One of the students of the class lost his life through a wound received in dissection, whereby the great vessels of the forearm, near the elbow, were fatally injured.

Several questions were investigated relative to the causes and consequences of alleged lesions, and with a view to determine whether certain wounds had been absolutely, or only contingently, mortal. These inquiries involved many complicated considerations [a somewhat detailed account of which, Dr. W. here gives.]

We were also called upon medico-legally to examine a human skeleton, which was found in a tolerable perfect state in digging up the foundations of a building. It belonged to a male subject of about the age of fourteen. No injuries could be detected upon it. But, the point to be ascertained, if possible, was—whether this skeleton had lain in the earth above twenty years or not, as this was material with reference to its affording the corpus delicti for a criminal proceeding. An accurate scrutiny of the state of the parts, with especial regard to the nature of the changes which subjects undergo when interred in different soils, gave us reason to infer that this skeleton had been burried perhaps about twelve or fifteen years in the spot where it was found.

The following case of suicide was remarkable. A criminal who had been shut up alone in a dark dungeon, when visited by his keeper not long after, was found lying dead on the floor. It was thought at first that he had had a fit of apoplexy. A vein was opened, and other means of recovering him were tried, but to no purpose. It was now for the first time noticed that he had a foreign body in his mouth; and, upon examination, it proved to be a piece of woollen cloth, two ells long, and a quarter broad—a shawl, in fact—which the wretched man had thrust into his throat. Had his person been found dead under other circumstances, what reason would there

not have been for suspecting that he had been murdered by a strange hand!

A case or two of malapraxis also came before us, particularly one in which, through the bad management of a midwife and an accoucheur, a woman had been allowed to sink after delivery, from uterine hemorrhage.

And lastly, we investigated a solitary case of poisoning, in which a child had drunk from a cup that contained fly-poison (a preparation of arsenic) Death ensued in twelve hours. But notwithstanding the most minute search of the intestinal canal and its contents, not a vestige of the deleterious substance could be detected. This was most probably owing to the very small quantity taken, and the evacuation effected by the vomitting.—*London Medical Gazette, March* 1834.

SYMPATHY OF THE UTERUS AND MAMMÆ.

To the Editor of the Medical Gazette.

Sir,—There is, perhaps, nothing more interesting, or more worthy the attention of an accoucheur, than the various sympathies which shew themselves between the uterus and other parts of the system. The morning sickness of early pregnancy; the convulsions in the latter months, or during labour; the violent rigours when the os uteri becomes fully dilated, or immediately after the birth of the child; the contraction of the uterus when the face is sprinkled with cold water, or after a draught of any cold fluid; are some of the most remarkable, among a considerable number, which occur before and during labour.

The connexion, in the unimpregnated state, between the uterus and stomach, is well displayed by the gastric derangement which frequently accompanies prolapsus uteri, and vice versâ. The pain and swelling of the mammary gland from menstrual irritation, or where there is subacute or chronic inflammation, or organic disease of the uterus, in like manner demonstrate the link between this organ and the breast. But the most striking instance of sympathy which I have remarked between these two organs, is the sudden and powerful contraction which is excited in the uterus, when in a state of inertia, by applying the child to the breast.

My attention was first drawn to this subject by an observation which I met with some years ago in Carus's Gynäakologie, recommending the application of the child to the breast to promote expulsion of the placenta where it was slow in coming away; but I was far from being aware of the extent to which this sympathy really existed. In cases where there has been considerable disposition to hemorrhage after labour, from non-contracted uterus, and where I have been afraid to leave the patient, lest flooding should come on in my absence, I have been for the last two years in the habit of ordering the child to be put to the breast as soon as her clothes, &c. were changed, and herself comfortably settled in bed, feeling that I thus diminished the chances there might be of any hemorrhage occurring. It was not, however, till last year that I began to see the practical importance of this sympathetic connexion between the breast and uterus in its full extent. Having had two or three cases of severe hemorrhage after labour, from uterine inertia, which had to a degree resisted all the common modes of treatment, and where permanent contraction could not be induced even by repeated injections of cold water and vinegar into the vagina, I determined to see what effect the application of the child to the breast would have upon the relaxed uterus, and was agreeably surprised to find the observation of Professor Carus confirmed in its full extent, firm and permanent contraction having been immediately produced in every case.

In looking over my notes of labour cases, I find that I have only mentioned its being done in four instances, where the hemorrhage was extremely profuse, and resisted all the other means which had been previously used; although I recollect having applied the child to the breast in several other cases of slight hemorrhage, which were not of sufficient interest to deserve noting down. Of these I select two, which not only serve to show the severity of the hemorrhage, but also point out another fact which is worth noticing.

Uterine Hemorrhage checked by applying the child to the breast.

23d June, 1833.—M. R. æt. 30, delivered of a boy: sixth child. Presentation natural: labour quick. Has been always subject to hemorrhage after labour, from inertia uteri. Was called to deliver the placenta. The uterus was hard, but there had been profuse flooding. The placenta required a gradual but firm extracting force to bring it way: some large coagula followed. The uterus became somewhat larger, but was still hard. On pressing the fundus another large coagulum escaped. She was very faint, and vomited some pulv. sec. cornuti which I had given her. The uterus after this remained hard and small, but the most imperceptible increase of its size was followed by a discharge of blood. Water by itself, and then vinegar and water, were repeatedly thrown up the vagina; and, as

faintness increased brandy and ammonia were given, as occasion required. After a while, when scarcely any discharge appeared, even upon coughing or straining to vomit, a bandage, with a large compress upon the fundus, was applied round the abdomen. As, however, the discharge returned, I ordered the child to be applied to the breast, the stimulus of which immediately produced full contraction of the uterus. On changing her clothes and putting her to bed, she wandered considerably, and there was strabismus. A drachm of tinct. hyosciami, in mist. camphoræ, brought on refreshing sleep, and she awoke some hours after, much better, but very weak. She suffered for some days from severe head-ache, and nearly total loss of vision, but eventually recovered.

Another Case, with an additional peculiarity.

Oct. 21, 1833.—M. L. æt. 34, delivered of a boy: third child. Presentation and labour natural. Of very unhealthy appearance. Acne of the nose and lips. Profuse hemorrhage after labour, to which she has been also subject in her previous lyings-in. Ergot of rye, cold externally applied, and cold injections into the vagina, had no permanent effect. Another woman's child was put to her breast, but still the uterus refused to contract, but when her own was dressed and applied, permanent contraction instantly followed.

This is the only case where I have not found immediate and permanent contraction of the uterus follow the application of the child; but I must also observe, that it is the only case where the patient's own child was not applied. I well remember that she allowed it to be placed by her side, without making the slightest attempt to assist in directing its mouth to the nipple, and scarcely even noticed it; but the instant her own was brought, her eye brightened up, the mother's feelings were excited, and she instantly roused herself to receive it in her arms and caress it. The powers of instinct produced an involuntary stimulus to the nervous system, and called into existence that beautiful chain of sympathetic actions which is evidently intended by nature as a protection against many of those accidental causes of danger to life during the important process of paturition.

When I first began to use this plan of treatment in cases of inertia uteri after delivery, I was frequently startled by finding a sudden gush of blood, accompanied by a forcible discharge of coagula, follow almost instantly the application of the child; but soon satisfied myself, that so far from being a return of the flooding, it was merely the result of the uterus contracting firmly and expelling its contents

It is a common saying among nurses, that "the child brings after-pains;" that is, when the child is first applied to the breast on the second or third day, as was formerly the custom, it was frequently followed by pretty smart after-pains, which evidently resulted from the uterus being excited to contract and expel any coagula of blood which might be lodging in its cavity or sinuses. Hence, besides its beneficial effects in preventing any danger from hemorrhage, the early application of the child to the breast is a valuable means of preventing much of that uterine pain and irritation which is apt to result from the presence of a coagula, &c. in the womb, after labour.

Since writing the above, my attention has been drawn to some interesting observations in the Dublin Journal, No. 11, by Dr. Paterson, on the effects of mammary irritation in the cure of amenorrhœa, &c. A patient, in whom the catamenia had been wholly suppressed for two years and a half, and who had been successfully treated for an attack of fever, had been ordered a sinapism to the right side of the chest, on account of pains of an hysterical character which had presented themselves. The sinapism had been inadvertently made so large as to cover a considerable portion of the breast; much irritation, with hardness, pain, and swelling of the gland, was produced, which in the course of about 36 hours, was followed by a copious discharge of the catamenia. Reasoning from the sympathetic actions which exists between the breast and uterus, Dr. Patterson tried this plan of mammary irritation in another case of amenorrhœa, and with a similar result: the catamenia appeared in 24 hours from the application of the sinapism, with complete restoration of the health. These facts are not only interesting, but valuable in a practical point of view; they also confirm, in a striking manner, the observations which I have submitted to you, and prove that we possess, by means of stimulus applied to the breast, a powerful, and I might almost say certain, means of acting upon the uterus, where other methods have been unsuccessful.

I am, Sir,

Your obedient Servant,

EDWARD RIGBY.

44, *Parliament-street, Feb.* 10, 1834.

London Medical Gazette, Feb. 1834.]

CASE OF HYPOSPADIA; WITH REMARKS ILLUSTRATIVE OF THE TREATMENT OF THAT SPECIES OF MALFORMATION.

By M. Dupuytren.

A child who laboured under a malformation of the urethra was brought to the Hôtel Dieu in September last. The orifice of the urethra was placed about an inch and a half below the extremity of the glans: the latter was imperforate. When the urine flowed, it issued perpendicularly from the penis. The jet was small, and the evacuation incomplete, and requiring an effort. The bladder was never perfectly empty, and the little patient could make water whenever he was desired. Such a position of the orifice of the urethra must render the individual unprolific: the semen could not be ejected towards the neck of the uterus; and for this reason, together with a desire to remove, if possible, the awkward condition of the parts, M. Dupuytren proposed to form an artificial prolongation of the urinary passage, so that it might terminate in its natural situation. His purpose was to effect this by the white-heat cautery en roseau, to be applied along the track of the urethra, from its extremity to its accidental opening. But the parents refused to permit the operation.

Hypospadia has been noticed by many of the more ancient surgeons, and various methods have been recommended by way of remedy. The treatment must evidently be very difficult, if not impossible, when the opening in the passage is far below the glans; and it has sometimes been so low as to raise doubts as to the sex of the party—when, for example, the urethra opens in front of the scrotum, or in the perineum. Paulus Ægineta recommended that the end of the penis, beyond the orifice, should be amputated. Galen, Albucasis, Fabricius ab Aquapendente, and Dionis advised that an artificial passage should be made through the glans, and a leaden bougie introduced and left there for some time. By means of small clean incisions, and bringing the lips together, cicatrization of the opening was effected, and a canula remained in the passage till the cure was complete. But modern surgeons have been pretty generally opposed to any operation of the kind. Sabatier speaks positively against it, and Richerand agrees with him in thinking that any canal so formed must necessarily become obliterated. M. Dupuytren, however, who is of opinion that individuals affected with Hypospadia are for the most part barren, has ventured to depart from the precept and practice of eminent authorities, and in one instance at least, has had reason to be satisfied with his determination. Twelve or fifteen years ago, a child, the heir of a rich family (much interested, of course, in his preservation), was brought to M. Dupuytren. Hypospadia was the complaint sought to be remedied. There was, at the root of the penis, a very small opening, by which all the urine passed slowly and with difficulty. From this point to the extremity of the glans there was no trace of an urethra. At the request of the parents, M. Dupuytren undertook a mode of treatment. He introduced a delicate trochar, from the anterior inferior part of the glans, along the track which a natural passage would follow, and pushed the instrument until it reached the accidental opening. He then cauterized the passage with the white-heat cautery *en roseau*. Very violent inflammation ensued, almost threatening gangrene; but by the proper use of antiphlogistics, this was subdued. An abundant suppuration followed. A gum-elastic catheter was introduced along the artificial passage, and continued into the bladder: it was kept there for three months. The accidental opening was several times touched with nitrate of silver, and was ultimately closed. The urine, at the end of this time, flowed freely by the new passage. But M. Dupuytren recommended that the catheter should still be employed, till the cure was complete and satisfactory. The child was then removed from Paris, and M. Dupuytren has every reason to believe that every thing turned out successfully in the cure.

When Hypospadia is carried to an extreme degree, it sometimes leads to strange mistakes, touching the sex of the individual. It constitutes a sort of supposed hermaphrodism, when its seat is in the perineum; the scrotum is then divided into separate folds, which resemble the labia, each of the folds containing a testicle; the penis, if not developed, simulates the clitoris; and the opening of the urethra is taken for the orifice of the vagina.—*London Medical Gazette, April* 1834.

NEURALGIC AFFECTION AFTER AMPUTATION.

By John Farrar Crookes,
House Surgeon to St. Bartholomew's Hospital.

Case.—Severe suffering in consequence of an Amputation of the Thigh—Local and constitutional symptoms.

Sarah Slyfield, about eighteen years of age, was admitted into St. Bartholomew's in July last, she had undergone amputation of the right thigh in the country about

nine months before her admission, for disease in the knee joint, the effect of an injury received several years previously. When received into the hospital, she stated that the pain in the stump had come on within a few days of the removal of the limb, and that, although the part had been carefully examined, and means adopted for her relief, it had continued to increase, almost without intermission, up to the present time. Shortly after the wound had healed, six months after the operation, a small lump formed in the extremity of the stump, which was opened, and several pieces of dead bone extracted, but without affording any relief. Menstruation had commenced about the age of sixteen, and continued regularly up to the period of the operation, but has since only occurred once. Her person was stout, with a hale and somewhat bloated countenance, and she complained of nothing but severe and incessant pain in the stump. Examination of the part much increased her distress, as the slightest touch in any point of its integument gave her pain. The limb was naturally large from fat, but without any swelling or redness; and the extremity of the bone seemed well covered by soft parts. She was bled to sixteen ounces, and ordered purgative and saline diaphoretic medicines, and to apply linseed meal poultices.

This painful affection, which was so severe as almost entirely to prevent the patient getting rest, continued gradually to increase for about four months, in spite of the adoption of the most active remedies. Local and general bleeding, counter-irritation by moxa, narcotics, and the application of sedative plaisters to the stump, with tonics and anti-spasmodics, were all tried in vain; and the patient began to entreat to have the stump removed, to procure her, if possible, some alleviation of her sufferings. During this time she also experienced repeated attacks of hysteria; and was once seized with pain and acute sensibility of the integuments of the abdomen, which at first excited a suspicion of peritonitis.

As it was suggested by some that there might be suppuration in the extremity of the stump, a puncture was made into it, and the knife carried to a considerable depth, but without evacuating any matter, or producing any beneficial effect; it was therefore resolved to perform a second amputation of the limb.

Operation.—On account of the shortness of the stump it was impracticable to employ the tourniquet, and compression was made on the artery, as it passes beneath Poupart's ligament, by an instrument ordinarily used for that purpose. The muscles on the outer part of the thigh were first divided, and those on the inner, including the artery, last; in order that the vessel might be secured as soon as cut through. The bone being sawn through, and several small vessels tied, the ischiatic nerve was drawn out, and about an inch of it removed; some of the branches of the crural nerve were also cut shorter. Fifty minims of laudanum were given after she was taken to bed, as she was suffering great pain.

Examination of the Stump.—The extremity of the ischiatic nerve was bulbous, and of an almost cartilaginous hardness, and from this bulb there was continued in various directions a layer of dense cellular tissue, connecting it with the bone, the muscles, and the cicatrix. One of the filaments of the anterior crural nerve, perhaps the nervus saphenus, had also a bulbous termination, comparatively much larger than the ischiatic, and was similarly connected with surrounding parts. The extremity of the bone appeared free from disease, nor was there any suppuration in its neighbourhood.

From the time of the operation up to the period of her discharge from the hospital, with the exception of a slight recurrence of the painful sensibility of the integuments of the abdomen, she continued to go on well, never having experienced any pain in the stump, or any unfavourable symptom. The remaining part of the limb was very short, but sufficient to permit of the adoption of the ordinary wooden leg, with the additional security of a strap to pass over the shoulder.—*London Medical Gazette, March* 1834.

RE-VACCINATION OF THE PRUSSIAN ARMY.

A circular, dated Berlin, March 15, 1833, signed by Von Wiebel, Chief of the Military Medical Staff, declaring that as the results of the re-vaccination of the army, as already effected, fully proves it necessary, it appearing that, in the guards alone, 1425 out of 2641 exhibited the true vaccine pustule, the order, therefore, for re-vaccinating all recruits is made absolute, and the physician-in-chief of every division is required to procure and collect from all the several regimental surgeons correct lists of all the men who have been re-vaccinated, as well as every circumstance coming under their observation, connected with the small pox, and to report the same every year at the end of February, to the Royal Military Council. This is followed by a statement, entitled "Collection of the reported results of Re-vaccination of the Army." Whereas a number of individuals have been attacked with small pox, and some have died in consequence, notwithstanding that strongly-mark-

ed scars unquestionably proved their having been vaccinated at an early age, it is, nevertheless, apparent that, in advanced years, they still are liable to be infected; and that such is likely to be the age at which they can be admitted to military service. Hence, on the representation of this fact, by the chief staff physician, to the commander-in-chief of the army, an order was dispatched on the 26th March, 1831, to all the medical officers of the army, for the re-vaccination of all the men who may appear to be possibly liable to suffer; as well as all recruits whatsoever, whether they have marks of previous vaccination or not. This order was attended to by the several corps which it reached, as far as could be effected, and with the following results. In the 3d corps of the army, being at Erfurt, in 1831, where the small-pox was raging, the 24th regiment of infantry, and the fusileers of the 20th, were re-vaccinated, and, out of 6020 men, 2354 exhibited pustules; among which, more than one-eighth proved of the true vaccine character. In the 8th corps, 2784 were vaccinated, and 925 took; among which, also, about one-eighth proved true vaccine.

In 1832, 3942 of the 3d corps were vaccinated, and 1594 exhibited effects; but, as in the rest, somewhat more than one-eighth, were true vaccine: in the 5th corps, of 3234 vaccinated, 2535 were affected in the aforesaid proportion. As yet, there are no accounts of the other divisions of the army, to which, however, the order has been sent and executed; the royal military chief being desirous that the whole army shall be placed in safety on this head. There being great doubts of the extent of this prophylactic measure, either from the possible failure of the original vaccination, or from the effect wearing out by time, at all events enough is established to prove the necessity of the measure; and it is notorious that, after the re-vaccination of the doubtful men, and the new recruits of the Fusileer Battalion, at Erfurt, not one became infected although closely in contact with very many violent cases of the disease. The circular goes on to direct that a constant attention be paid to the re-vaccination of the recruits, and gives some minute military regulations for the purpose, demanding a regular return to be made as before mentioned, after the following manner:—1, name of the regiment; 2, place; 3, name of the men; 4, number; 5, if marked by previous vaccination (a) certain (b) uncertain (c) none; 6, the re-vaccination (a) regular effect, number (b) irregular, number (c) without effect, 7, repetition on those which failed, (a) with effect, (b) without; 8, number of pustules going through their course; 9, account of cases occurring during the year, in spite of vaccination, (a) varicella (b) varioloid (c) small-pox; 10, general remarks.—*Ruet's Magazine and Lane's Monthly Archives.—London Medical Gazette, April*, 1834.

MEDICO-CHIRURGICAL SOCIETY.

November 26, 1833.

Mr. HOWSHIP on the Œstrus Humanus.

An interesting paper, by Mr. Howship, on the subject of the Œstrus Humanus, was read, it contained the relation of two cases:

The first was that of a soldier in Surinam who was visited, in August, 1806, by Mr. Gill, Surgeon of the 64th Regt. for a large boil on the back, near the scapula. Compression ejected the larva, of a dirty brown colour, and answering the description of that found in the second case. The out-post, where the case occurred, is on a sand-bank, closely hemmed in by the bush (wood). The man appeared aware of the nature of the swelling, as he said there was a worm in his boil.

The second case was in a young man, at Santa Anna, in Columbia. He applied to Mr. Treherne for an inflammatory swelling, of several months existence, on the scrotum, with a small ulcerated opening, from which a living larva was pressed out, and fell to the ground. It was active, and moved to and fro for some time afterwards. It was more than an inch long, broad in proportion, composed of nine or ten rings, and of a brown colour.

Two very beautiful drawings, made by a distinguished artist in this line, accompanied the paper, which was rendered more interesting by Mr. Howship exhibiting, at a subsequent meeting, the larva itself to the society.

The annexed description of the larva, from the pen of Mr. Curtis, chiefly interesting to those engaged in the pursuits of natural history, leads to the inference, that the insect in question forms a new species of œstrus.

To determine the exact characters of the fly this larva produces, Mr. Curtis observes, that if at any time a full-grown larva should be obtained, a garden-pot, filled with light moist earth, should be taken, and the grub, placed on the top, would soon bury itself, and change to a pupa or chrysalis. The pot should be set on a saucer, with water, to keep the earth moist, a state essential to produce the fly. To prevent its escape when hatched, a piece of gauze or muslin must be tied over the top, and the fly, when produced, must be allowed to live some

hours after its escape from the pupa, that the wings may dry, and the parts assume their proper form and colour.

These concluding remarks appear to be most important, as they may enable some future observer, interested in researches of this kind, to complete what remains to be determined regarding the natural history of the œstrus humanus.—*London Medical Gazette.*

LONDON HOSPITAL.

POISONING BY OIL OF TAR.

Thomas Want, a youth about eighteen years of age, was brought into George's Ward on Saturday, at half-past ten P. M., suffering from the effects of oil of tar. It appeared that the lad had taken gin, as well as porter, in sufficient quantity to deprive him of sense; while in this state, he saw a quart measure containing the former poison, (the oil) which but a few minutes previously had been purchased by his master for the purpose of being burned in a lamp. He was aware that the fluid was poisonous, and said, jokingly, to another boy, that he would drink some of it. No attention, however, was paid to the remark, as he was accustomed to utter bravadoes of this kind among his companions, and he took two or three draughts of the deleterious liquid before his proceeding was noticed.

At the time of admission the boy was insensible; the breathing was difficult, and accompanied by loud mucous rattle; extremities cold; pulse scarcely perceptible; conjunctive suffused; pupils very much contracted. The stomach pump was used (under the superintendance of Mr. Williams, the apothecary,) without loss of time, and some warm water was injected, which, in a few minutes, was withdrawn. It was strongly impregnated with the oil of tar. A mixture of lime water and magnesia was introduced. This compound was also withdrawn after a lapse of a short time, and the patient put to bed. The atmosphere within a short distance of the patient's bed had become extremely unpleasant from the disgusting stench of the oil of tar; it occasioned severe smarting of the eye-lids of those persons who were in attendance on the patient. Mustard cataplasms were extensively applied to the extremities, and liquor ammoniæ to the chest. Very slight reaction had taken place after waiting an hour; the feet were warmer; pulse irregular, varying from 90 to 95. He was bled to twelve ounces without manifest improvement; afterwards a stimulating injection of turpentine was administered. On visiting the patient half an hour after the employment of phlebotomy, he was found breathing stertorously and very irregularly; each inspiration was short and quick, and followed by a long laborious respiration. He remained in a comatose state during the greater part of the night; he had a short interval of consciousness at about five A. M., when he asked the nurse for water, and, in answer to a question put by the nurse, he was understood to say that his name was William Frederick. He expired at about half-past nine A. M.

Sectio-cadaveris.—The papillæ maximæ very much hypertrophied; mucous membrane of the larynx and trachea highly injected, more especially towards the bronchi; the lungs engorged with blood, and smelt strongly of the oil. The æsophagus was rather paler than natural, as also was the mucous membrane of the stomach. In one portion it was of an orange-yellow colour, studded with brown spots, which remained, unchanged by ablution. The contents of the stomach were of a yellow colour, and about a half pint in quantity; the valvula conniventes and mucous membrane throughout the canal, were stained of a light yellow hue, and were, to all appearance, less vascular than natural. On the convex surface of the liver were observed a few yellowish spots; the gall-bladder was distended with bile; the rest of the abdominal viscera were healthy. The brain presented very slight deviations from the natural appearance, with the exception of the arachnoid membrane, which was opaque in several parts.—*Lancet, March,* 1834.

BEST METHOD OF APPLYING LEECHES.

M. Mojon, of Genoa, recommends that cupping-glasses be used for applying leeches; six or eight of them should be put into a glass, and when partial exhaustion is effected by the usual process, the animals, for want of air, will, by a sort of instinct, attach themselves instantaneously to the elevated skin.—*London Medical Gazette.*

RAPID PARTURITION, AS CONNECTED WITH FORENSIC MEDICINE.

A woman has been known, I might almost say, to drop a child, while moving across the drawing-room, while riding in a coach, while walking in the street, under circumstances in which her own life, as well as the infant's, must be brought into some degree of hazard.

Now the possibility of such an occurrence is worth being borne in mind, not

only that we may guard our married patients, if we know they possess a large pelvis, (and we may know it by having attended them in labour previously,) against the chance of the child suddenly emerging into the world, but in a judicial point of view also. It may be the means of saving a life that might have been unjustly sacrificed, if we reflect how rapidly the process of labour has been accomplished in some instances; and that what has once occurred in nature may possible occur again. We will presume, then, that a young unmarried woman has unfortunately been entangled by the snares of one of our own sex, and that she finds herself impregnated: from the modesty inherent in the female character, she is unwilling that her shame should be divulged; she fully intends to acknowledge her misfortune before her expected accouchement, but puts it off from day to day, with a natural aversion to make a confession which must drive her from the society of her friends. Probably she may have miscalculated the time at which she expects to be delivered, or perhaps she may be seized with parturient pains rather prematurely. She feels a rumbling in her bowels, (by no means uncommon at the commencement of labour;) she fancies she has an inclination to evacuate the rectum; she retires to the garden for that purpose; she finds strong pains come on; she is unable to leave the seat on which she has placed herself; the vagina and the external parts are very much relaxed; the uterus acts forcibly, and the child and placenta are propelled out together into the mire below. She is aware then of what has happened; she hears no scream; she has but a very few minutes in which to take a final determination; she wishes to hide the occurrence; she comes into the house again; returns to her friends; makes the best story she can for the appearance of her linen; and for a time everything is hushed. By-and-by suspicion arises: it is possible the place may be emptied, and the child is found. A cry of "murder" is raised; she is suspected first, then indicted, dragged into a court of justice, and upon medical testimony will often depend her life.

That a girl inexperienced in the feelings of child-birth may be unaware of the approach of labour, is sufficiently evident to require no illustration; but I cannot help enforcing the position by relating a short anecdote. I was in attendance on a lady who had borne a number of children, and had generally suffered protracted labours, I had just made an examination, and found the os uteri but little dilated. I was standing by the fire in her chamber, in conversation with a female relative, who was anxiously watching over her, when I was requested to leave the room, in consequence of an inclination my patient felt to evacuate the rectum. I had scarcely retired when I was summoned back again; and, to my surprise, I found her sitting on the night-table, and both child and placenta lying in the pan beneath. In this instance the infant was saved. Had the same accident happened in a closet, it would most probably have lost its life. This case shews both the rapidity with which the parts occasionally become dilated, and also how much the mother herself may be deceived in her sensations. Nor is this the only instance of the kind that I have witnessed; but another very similar has also come under my own immediate notice.

It is very possible, then, that such an occurrence may take place as I have attempted to bring before you, and under such circumstances let us always lean to the side of mercy. We must not, and we dare not, as we value our oath, state what we know to be untrue, and we should be equally criminal if we withheld any knowledge that we possessed bearing on the case; we are bound to give in evidence that such rapid labours have occasionally happened, and it is for the judge and jury to grant the poor creature the benefit of this information. Let us treasure up these facts in our recollection; we may hereafter, perhaps, derive much consolation from their application.—DR. RAMSBOTHAM'S *Lectures in Medical Gazette.*

THE INDIA
Journal of Medical Science.

CALCUTTA; OCTOBER 1, 1834.

Anxious as much as possible in these hard times to save our kind contributors from any expense of extra postage, on account of communications for this Journal, we applied to the Post Master General, requesting that all such might be allowed to be forwarded to the address of the Editors *bearing postage.* For certain reasons, however, this favour has not been conceded to us, and we must, therefore, fall upon some other plan. The only one that suggests itself to us at present, is to return the amount of postage accruing on all communications forwarded to us for publication, either to the agents of contributors, or to

make any other arrangement for the purpose they may point out; or perhaps it would suit the convenience of most to have the charge deducted from their subscription to the work. At any rate, we beg all who may continue, or intend to favour us, with contributions distinctly to understand, that the least we can do to evince our sense of their kind support, is to save them the expense of postage. They will considerably add to the obligation by writing closely, and on as thin paper as they can procure.

Most of Mr. Wright's observations on the disease, locally designated Hill Fever, are as applicable to some parts of the Bengal presidency as to that of Madras. Under any circumstances the disease is a very formidable one, and requires very prompt and decisive measures of treatment. Mr. Wright very properly insists on the antiphlogistic plan, and in cases attended with delirium recommends the application of cold lotions to the shaved head, whilst the lower extremities are constantly kept immersed in warm water—we should think also that in cases of head-ache, arising from determination of blood to the head, the practice would be found useful.

The same writer, we observe, has a paper on Beri-Beri, in the CXIX. No. of the *Edinburgh Medical and Surgical Journal.*

In Mr. Bayfield's interesting account of Small Pox in Ava, mention is made of a very untoward circumstance, which has for a time completely shut the door on vaccination in that country. To select vaccine virus or to pronounce upon the nature of the vaccine pustule is not so very simple a matter as many suppose it to be, and under that supposition there is little reason to doubt that several benevolent persons, not sufficiently well informed perhaps on the subject, have propagated a spurious disease, that forms no protection whatever against small pox. The circumstance in question has done much mischief even in Europe, retarding the progress of vaccination, and limiting the effects of that blessed discovery. In Ava the unfortunate result of the experiment on the royal child is calculated to be productive of greater suffering and loss of life than elsewhere, because small pox is treated on the antiquated plan of warm regimen. Indeed it is rather curious to see that the same erroneous system of treatment, seems to have pervaded all nations at one time or other from Ava to Hudson's Bay, amongst Europeans, and Asiatics, and South and North American Indians. Among our Selections will be found an article shewing the high importance in which vaccination is held in Prussia. In Austria the Jennerian prophylactic is also held in the highest regard, and several little civic rewards or privileges are conferred on the poorer classes who have their children vaccinated; and in some parishes a rule holds that children are not to be brought to the Bishop for confirmation until they have been vaccinated.

The example of SCOTUS has called a coadjutor into the same field, and by a curious coincidence, although far distant from each other, and both ignorant of each other's personal identity, they have chosen for the subject of portraiture the same individual; viz. Mr. Liston, one of the first Operators in the world. Both sketches happily illustrate each other, and EDINENSIS just stepped in, in the nick of time, to fill up whatever SCOTUS might have omitted. Thus we have the professional and personal appearance and characteristics of Mr. Liston graphically hit off. EDINENSIS in one respect appears to have mistaken SCOTUS's plan of proceeding with his sketches, as if he were to confine himself merely to the University Medical Professors. SCOTUS, however, evidently never meant to set such a limit to himself, but anticipated from the first, if we are

not mistaken, to give us portraits of *all* the Edinburgh Professors, whether belonging to the University or not—in which we hope he will continue to have so able a coadjutor as EDINENSIS.

Our Compositors, we find, have trenched liberally upon our friend Mr. Burnard's patience, with respect to the typography of certain Indian terms in his case of extensive poisoning, which appeared in No. VIII. In this respect we must conscientiously admit that we were as much at fault relative to the correct orthography of the terms as the Compositors. Apropos, to this matter, we beg of our Contributors, when they write proper names, or the Native ones of country productions, that they would do so with the utmost distinctness — as otherwise there must be a great liability to mistakes. In continuation of the case alluded to, Mr. Burnard communicates, that he had ascertained through his Native Doctors, that eleven other persons, in addition to those mentioned in No. VIII., died from the effects of the poison, whose cases were not reported to the Police, making in all, with those whose bodies were brought to Mr. Burnard, 29—and that many others suffered, though in a slighter degree, who did not apply for relief. In all there must have been between 80 and 100 affected, and the quantity of Singheea used, appears to have been about 12 ounces. The motive for putting the drug into the liquor appears to have been, to bring discredit upon the liquor shop, the person who rented the same the preceding year, having been this year superceded by a higher bidder. The person who put in the drug, had been a servant of the former shopkeeper, but employed under the present, and was supposed to be instigated by his former master. The man, we understand, confesses to the fact of having put in the Singheea, but denies any intent of producing a fatal effect. The wretch has been sentenced to three years' imprisonment, and three others, who were in some way implicated, to minor terms of durance! This is not a suitable place to enter into any remarks upon the proportion between the punishment and the offence, but we may be allowed to state, that, if there is a wretch more than another that ought to be visited with most condign and signal punishment, it is the man who deliberately drops a poison, or deleterious substance into the food, or drink of human beings, and who after being the active agent in the destruction of 29 of his fellow creatures, and the serious indisposition or torture of 71 besides, coolly turns round, and says, he meant no harm! This is a subject that ought to be seriously looked to, more especially as we find (see Mr. Esdaile's paper,) that poisoning, in India, is as regular a profession as Thugging.

In No. VIII. we published an ably drawn-up case by Mr. Wray, of liver disease, which through the kindness of Mr. Muston, Superintending Surgeon of Dinapore, was forwarded to us through a speedy channel, free of expence. In our remarks on the case, we expressed a doubt as to the probability of the final recovery of the patient Thomas Synott, and a wish that Mr. Wray would, at his convenience, inform us whether the man had any return of his complaint, &c. This Mr. Wray has very obligingly done, and we have the pleasure to submit his statement which is highly satisfactory, and shows that even in cases that might be deemed desperate, ultimate recovery is not impossible. The statement is dated Dinapore, 20th August, 1834.

"I now beg leave to state that Private Synott was a time-expired man, who wished to renew for the Company's Service, but from the nature and severity of his illness, I strongly recommended him not to do so, which advice he followed, but being anxious to return to the Service, he requested me to give him a Certificate to shew to the Court of Directors to enable him to renew should

he continue well, and the following is a copy of the one I gave him :—

COPY OF CERTIFICATE.

I, Octavus Wray, Surgeon H. Comp's. Bengal Europn. Regt., do hereby certify, that Private Synott, Gr. Compy. of the same Regiment, has been since the 25th of January last, labouring under a very severe affection of the liver. Abscess formed in the right lobe, and was punctured on the 18th of March, between the 7th and 8th ribs, a little anterior to the angles, and upwards of two quarts of thick clotted pus discharged. The discharges of pus continued profuse for several days—and altogether at least 10 quarts of pus have been discharged, the wound is now quite healed, and he is in perfect health, with the exception of debility. Being a time-expired man, I have recommended his going home for a change of air. He is not entitled to any pension, only having served nine years; he was anxious to renew, but on account of the nature and severity of his illness, I strongly advised him not to do so—and I therefore hope that the Hon'ble Court of Directors will extend their favor to him, should he, after a residence in England, wish to return to their Service in India.

(Signed) Octavus Wray, *Surgeon,*
Bengal European Regt.
Dinapore, 16th April, 1834.

Since perusing your Journal, I have made inquiries from Sergeant Williams, Sergeant Shaw, Corporal Emerson, and Private Heam, all of the Eur. Regt., who accompanied the time-expired men to the Presidency in April last, and they all agree in stating that Private Synott continued free from complaint on the passage down, and on their leaving Calcutta on the 3d of July was apparently in good health, their written statements given to me, shall be forwarded to you if required."

Our readers may remember that in our fifth number, we attempted to shew the defective state of medical jurisprudence in this country; and pointed out, so far as the Town of Calcutta is concerned, a remedy for the evil. Those remarks have given rise to a request from our intelligent correspondent, Dr. Esdaile, that we would detail the processes by which the vegetable poisons can, as we there stated, in many instances be detected with a great degree of accuracy. And we readily comply with his request, so far as lies in our power, both, as we hope it will, as he says, be acceptable to others as well as to himself; and because the matter is in itself so important to the furtherance of the ends of justice, that we are under no dread of tiring our readers by turning their attention to it again.

The circumstances to which we more particularly alluded, were in cases where the poisoning has taken place by the exhibition of some of those deleterious vegetable substances, whose powers depend upon an alkaline base: such as Nux Vomica, Opium, Hellebore, and many others. In these cases it will be necessary by a careful analysis of the contents of the alimentary canal, or of the matter thrown up by vomiting, to procure in a separate form the active principle of the substance employed: a process, which at first may appear difficult to effect, on account of the small quantity of the poison for the most part we have to operate upon; but which, with an ordinary degree of skill in manipulation, may generally be accomplished.

Since the above mentioned remarks were penned we have received the 21st part of the Cyclopœdia of Practical Medicine, where, under the head of Toxicology, the steps to be followed in cases of poisoning by opium are well laid down. And as they are more or less applicable to other substances we shall quote them here, in preference to giving, as we at first intended, any details of our own.

"Let an aqueous infusion of opium be treated with ammonia, and the morphia, narcotine, and some resin will precipitate, while the meconic acid will remain dissolved in union with the volatile alkali. From the precipitate the narcotine is removed by hot sulphuric ether, and the morphia by distilled vinegar, ammonia being again added to the solution in order to throw down the vegetable alkali, should it be required in an insulated state."

"To procure the meconic acid, acetas plumbi must be added to the solution from

whence the other two principles were precipitated by the volatile alkali, and which now includes meconate of ammonia. A meconate of lead is thus formed, which, being insoluble, subsides, and from this the acid can be procured by suspending the precipitate in water, passing through it sulphuretted hydrogen, and filtering in order to separate the sulphuret of lead. The solution thus obtained yields crystals of the acid, and if again united to oxide of lead and separated as before, they will be obtained purer and of a whiter colour."

"In instituting experiments for the detection of opium, our search may be directed towards the morphia or meconic acid. For both these principles there exist very delicate tests, the most certain of which, with the manner of applying them, it will be proper to mention before proceeding further."

"If to morphia a little strong nitric acid be added, it is dissolved with effervescence, and the solution assumes a deep orange colour. This process is not applicable to morphia in a perfectly pure state, for the developement of the orange colour has been clearly traced to foreign vegetable matter, of a resinous nature, invariably present in the alkali as ordinarily prepared, but which, nevertheless, may be entirely removed. Others of the vegetable alkalies, for example strychnia and brucea, are similarly affected by nitric acid, and from a similar cause.

If morphia in a pulverulent state be brought into contact with permuriate of iron, it is dissolved, and the solution exhibits a beautiful blue colour, which however, when dilute has a tinge of green."

"If morphia be rubbed up with a little of a cold solution of starch, and iodic acid be then added, the morphia deoxidizes the acid, and the iodine set free is immediately indicated by the formation of the blue iodide of starch. This relation of the morphia to iodic acid is quite characteristic, and furnishes a most sensible process for detecting its presence.*

Meconic acid is characterized by striking with a dilute solution of permuriate of iron a beautiful red colour. A similar change is effected in the ferruginous salt by the sulpho-cyanic acid. The persulpha-cyanuret of iron, however, may be distinguished from the permeconate by the colour of the former being destroyed, but that of the latter not, by the muriate of gold. This method of discriminating between them acquires practical importance from the discovery of Gmelin and Tiedemann of sulpho-cyanide of potassium in the saliva of man.

"Having premised thus much upon the chemistry of opium, we have next to inquire how a case of suspected poisoning by it is to be investigated by the Toxicologist."

"The symptoms, whether alone or combined with a post-mortem examination, can lead to little more than suspicion. The odour of opium is strong and peculiar, and has been frequently recognized in the stomach and intestines when other methods of investigation afforded but unsatisfactory results. On the whole, however, the chief reliance must be placed on the application of the chemical tests for its active principles, which have been above enumerated."

"If a pure aqueous solution of meconate of morphia were the subject of experiment, the acid might be thrown down in the form of meconate of lead by the addition of a little acetas plumbi, and be separated from the oxide of lead by sulphuretted hydrogen, as already described. The solution, also, from which the meconic acid has been precipitated, if deprived by sulphuretted hydrogen of any unprecipitated oxide of lead, will deposit the morphia on the addition of a slight excess of the water of ammonia; and to the acid and the alkali when thus insulated the tests already described may be applied. This method will also answer for opium itself and its several medicinal preparations, these being converted into aqueous infusions, and, if acid, rendered nearly neutral before the addition of the acetate of lead. But when morphia or meconic acid is sought in complex mixtures, such as the ordinary contents of the stomach, other preliminary steps are indispensable, the object of which is, to afford a final solution containing as little as possible of other matters, than those which it is the purpose of our experiments to detect."

"The steps are as follows:—The mixture is to be infused for some time with distilled water acidulated with acetic acid, then thrown upon a filter, and the solution thus obtained is to be evaporated to dryness at or under 212°. Upon this extract boiling alcohol, specific gravity ·810 is to be digested, and the spirituous solution thus obtained is to be deprived by distillation or evaporation of its alcohol. This second extract is to be acted upon by water, and the resulting infusion, when filtered, is to be treated with acetate of lead, &c. with the view of insulating and subjecting to their appropriate re-agents the morphia and

* In a recent case of poisoning by acetate of morphia, in reference to which the writer was engaged professionally by the coroner, the test by iodic acid was the only one which afforded unequivocal evidence of the poison in the contents of the stomach.

meconic acid sought for by the process. By prosecuting this route, opium, though present in an organic mixture in very minute quantity, may often be detected. Instances, however, have occurred in which, though the poison was undoubtedly swallowed, it could not be found in the intestinal tract; and these are usually considered as accounted for by supposing it to be either absorbed, or decomposed in virtue of the digestive powers of the stomach and inferior intestines."

By carefully following the processes here given, we ourselves have been enabled to detect, with certainty, the presence of opium in a solution containing it in a very small quantity; and it is said that by treating the meconate of lead thrown down, in the first instance, by sulphuric acid, and afterwards by a solution of permuriate of iron, the cherry red colour of meconate of iron is produced, even when only ten drops of laudanum are mixed with no less than eighty ounces of water.

Strychnia, brucia, curaria, veratria, atropia, &c., may, by careful manipulation, be discovered. The principle of the operation is the same in all. They all exist, in the vegetables in which they are found, in combination with an acid to which they have but a feeble affinity, and from which they may be obtained by being treated with some of the mineral alkalies, or the earths: and when thus procured in a separate state, they are readily known by the properties peculiar to each. To facilitate the distinguishing of the characters of these substances, we are preparing, for an early number, an analytical table of the vegetable bases already discovered; which, it is hoped, may be of use to such of our readers as may be inclined to enter upon this branch, of the study of chemical science.

But the vegetable substance employed in a case of poisoning may owe its activity to an alkaloid, not hitherto discovered. In instances of this kind the question is a more difficult one, but there are generally some suspicions as to the vegetable used, and if possible it should be obtained, when perhaps by submitting it to a careful examination, its active principles may be found out; and then, by operating upon the contents of the stomach, or the matter vomited, a similar principle, agreeing in all its properties, may be obtained from them: the evidence in which case would be conclusive.

There are also other vegetable deleterious substances to which chemistry has as yet been applied in vain. The poisonous fungi belong to this class; and so does, as we believe, the ergot of rye. The symptoms of poisoning by the last named substance are, it may here be observed, very much like those of cholera: and as it is to be supposed that the ergot of rice, or any other grain would produce a similar effect, the speculations of a worthy and eccentric brother of our craft may, in some instances, be correct. At all events, it is well to be on our guard, against the danger of confounding a genuine attack of cholera, with poisoning, accidental, or malicious, (if malicious it ever be) by ergotted grain.

We scarcely know whether Prussic Acid should be placed among vegetable poisons or not. However, its characters are so well known, and the means of detecting it so well laid down in various works on systematic chemistry, that it is useless to dwell upon it here.

We have travelled somewhat further than we intended, in the foregoing remarks, but the importance of the subject must be our excuse for thus largely trespassing upon the patience of our readers. From the circumstance, of vegetable analysis having, but of late years, been so carefully attended to as it now is, many persons are disposed to think that peculiar difficulties await its pursuit. On trial, however, it will be found, that with a common knowledge of the principles of chemistry, (without which, indeed, medicine itself can now-a-days be practised but at a disadvantage,) and by a careful manipulation, the component parts

of a plant may be separately obtained, with as little real difficulty as those of a stone. We are anxious to do away with the impression, that vegetable analysis is an exceedingly difficult art; for, we are aware of the vast importance of considering it in its true light. We have on a former occasion stated our conviction that poisoning to a great extent is carried on in this country; and we doubt not, but the security from analysis, which vegetable poisons have hitherto enjoyed, is one cause of their being principally used. Let it be once understood that, the administration of poison is attended with almost certain risk of detection; that deaths, thus caused, are no longer likely to be confounded with those from apoplexy, or from cholera, and, we will answer for it, fewer will occur.

We repeat that, medical jurisprudence is too little cared for in India: that men are not safe till it is more so. And we trust that among the Professors of a future Calcutta College of Medicine, one of this art will not be forgotten.

MEDICAL INTELLIGENCE.

General Orders relating to the Medical Service.

BY THE VICE PRESIDENT IN COUNCIL.

August 28th.—The Vice President in Council is pleased to make the following Appointment:

Assistant Surgeon William Stephens Dicken to the Medical duties of the Civil Station of Cuttack, vice Assistant Surgeon William Stevenson, Senior, appointed to Malacca.

Assistant Surgeon G. N. Cheek, attached to the Civil Station of Burdwan, has obtained, in the Judicial and Revenue Department, under date the 18th instant, leave of absence, for two months, on private affairs.

No. 108 of 1834.—The following Lists of Rank of Assistant Surgeons, are published in General Orders.

No. 1 of 1833.

Rank of Assistant Surgeons appointed to Bengal, and proceeding by the following Ships; viz.

To rank from the dates of the sailing from Gravesend of the Ships on which they embarked, and in the following order:

Charles James Davidson, *City of Edinburgh*, sailed 23d November 1833.

James Macdonell, ditto ditto.

William Dunbar, M. D., *La Belle Alliance*, sailed 14th January 1834.

September 8th.—The following Officer has obtained leave of absence from his Station:

Dr. W. B. O'Shaughnessy, Officiating Assistant Surgeon of Behar, to the 1st proximo, on private affairs, in continuation of the leave granted to him on the 4th ultimo.

13th.—The Hon'ble the Vice President in Council is pleased to make the following Appointment:

Assistant Surgeon Allan Gilmore, M. D., to officiate in Medical Charge of the Civil Station of Shahabad.

Mr. Thomas Leckie is admitted to the Service, in conformity with his appointment by the Honorable the Court of Directors, as an Assistant Surgeon on this Establishment—Date of arrival at Fort William, 10th September 1834.

The undermentioned Officers are permitted to proceed to Europe on Furlough, on Medical Certificates:

Assistant Surgeon Edward William Clarributt, of the Medical Department.

Veterinary Surgeon William Barrett.

15th.—The following Officer has obtained leave of absence from his Station:

Mr. K. Mackinnon, M. D., Assistant Surgeon of the Civil Station of Tirhoot, for three months, to proceed to the Presidency, on private affairs.

18th.—The Honorable the Vice President in Council is pleased to make the following Appointments:

Assistant Surgeon James Pagan to the Medical duties of the Civil Station of Rungpore, vice Jackson appointed to Ghazeepore.

Assistant Surgeon W. B. O'Shaughnessy to officiate in Medical charge of the Civil Station of Cuttack.

The appointment of Assistant Surgeon William Stephens Dicken to the Civil Station of Cuttack, in General Orders No. 166, of the 28th ultimo, is cancelled at his own request.

The undermentioned Medical Officers, attached to Civil Stations, are, at their own request, placed at the disposal of the Major General Commanding the Forces:

Assistant Surgeon James Barker in Medical charge of the Civil Station of Kishnagur.

Assistant Surgeon William Abbott Green in Medical charge of the Civil Station of Mymensing.

The undermentioned Gentleman is admitted to the Service, in conformity with his appointment by the Hon'ble the Court of Directors, as an Assistant Surgeon on this Establishment:

Medical Department.—Mr. Keith Macalister Scott—Date of arrival at Fort William, 13th September, 1834.

Assistant Surgeon James Taylor, attached to the Civil Station of Dacca, is permitted to proceed to the Cape of Good Hope, on Medical Certificate, for eighteen months.

No. 176 of 1834.—The following Extracts of Letters Nos. 19 and 24, from the Honorable the Court of Directors, in the Military Department, under dates the 9th and 16th April 1834, are published in General Orders:

Letter No. 19, *dated 9th April*, 1834.—"Para. 2. Surgeon James Hall, of your Establishment, has been permitted to remain six months longer in this country."

Letter No. 24, *dated 16th April*, 1834.—"Para. 2. We have permitted Assistant Surgeon A. Vans Dunlop to return to his duty on your Establishment by an overland route, and we have complied with his request to be granted a conditional extension of his leave until the 1st March next, in order to guard against any unforeseen delay which might cause him to overstay his present leave.

4. Mr. Horace H. Wilson, late a Surgeon on your Establishment, has been permitted to retire from the Service. His retirement takes effect from the 28th January 1834."

No. 177 of 1834.—Under instructions from the Hon'ble the Court of Directors, the Vice President in Council is pleased to direct, that the usual Palanqueen Allowance of Thirty (30) Rupees, be passed to Assistant Surgeons at Civil Stations, who do not draw more than 300 Rupees per month.

By the Major General Commanding the Forces.

August 27th.—The Agra and Muttra Frontier Order of the 6th instant, appointing Assistant Surgeon T. Stott to take Medical charge of the Wing of the 45th Regiment Native Infantry, during its separation from the Head-Quarters of the Corps, is confirmed.

30th.—Under instructions from Government, the Major General in Command of the Forces is pleased to direct Assistant Surgeon E. W. Clarributt, at present attached to the 4th Battalion of Artillery at Dum-Dum, to proceed to Burdwan, and to act as Civil Surgeon at that Station, during the absence on leave of Assistant Surgeon G. N. Cheek.

The leave of absence granted to Assistant Surgeon C. Llewellyn, of the 35th Regiment Native Infantry, in General Orders of the 18th ultimo, is cancelled.

The Meerut Division Order of the 12th instant, directing Assistant Surgeon J. H. W. Waugh to proceed to Allygurh, and to assume Medical charge of the 40th Regiment Native Infantry, is confirmed.

September 6th. — Hospital Apprentice Francis Buchanan, now at the General Hospital, is appointed to His Majesty's 38th Regiment of Foot at Berhampore, to fill a vacancy, and directed to join.

10th.—The Presidency Division Order of the 1st instant, appointing Surgeon D. Renton, of the 10th Regiment Native Infantry, to act as Superintending Surgeon at Barrackpore, during the indisposition of Superintending Surgeon Thomas, is confirmed.

Surgeon Donald Butter, M. D., is removed from the 70th to the 63d Regiment Native Infantry at Mullye.

11th.—Veterinary Surgeon I. Bicknell, from the 5th to the 2d Regiment Light Cavalry, which he will proceed to join without delay.

Veterinary Surgeon W. Barrett, from the 2d to the 5th Regiment Light Cavalry.

13th.—Major General the Honorable J. Ramsay's Meerut Division Order, dated the 31st ultimo, directing Assistant Surgeon D. Gullan, at present in Medical charge of the Left Wing of the 14th Native Infantry, to join and do duty with His Majesty's 26th Regiment, is confirmed.

Assistant Surgeon A. Keir, M. D., at present attached to the 1st Regiment, Native Infantry, is directed to proceed forthwith to Agra, and to join and do duty with the 5th Battalion of Artillery.

ERRATUM.

In Mr. Raleigh's Hospital Reports, page 371, second column, line 13, from the bottom, for "Opii. gr. v" read "Opii. gr. i."

TO CORRESPONDENTS.

The following Communications shall appear as soon as possible:—

Popular Notions on Health and Disease, No. III., by J. Atkinson, Esq.

Observations on the Vitality of the Blood, (concluded) by T. A. Wise, Esq.

Case of formation of Fat in the Heart, &c., by J. Esdaile, M. D., C. A. S.

Aneurism and Ligature of the Aorta, by D. Stewart, M. D.

Dr. Burt's case of Anomalous Affection in a Native.

Case of Retention of Urine, by P. Steuart, Esq., Bombay Establishment.

THE INDIA

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Original Communications.

POPULAR NOTIONS ON HEALTH AND DISEASE, EXAMINED.—No. III.

Slow Poisons.—It is a commonly received impression that there exist certain poisons which produce their deleterious effects, after the lapse of a particular period; that a man may unconsciously carry poison in his system for many months, nay years, and become its victim on the very day fixed upon by the person who administered it, the result being calculated and depended on as confidently as the date on which a bill of exchange becomes due. This is a ridiculous error, and the pretended slow poison merely a freak of the imagination.

Every deleterious substance introduced into the animal economy operates rapidly, or is rejected by the excretories. It is absurd to think that it can remain inactive, and in a sort of slumber till a certain time, when its deadly virulence is to manifest itself.

There are, no doubt, substances less active, and which administered in quantities, insufficient to produce immediate death, may cause in their passage organic derangement of various degrees of intensity, but their effect is felt at the time, and uneasiness and pains, more or less severe, announce a change of condition. The subject may recover, or die, but only after long experiencing the consequences of the poison.

On Poisoning.—Scarcely any body entertains a doubt that milk is an antidote against all sorts of poisoning. In Druggist's shops the men employed in grinding verdigris and other poisonous substances, drink milk continually, and are persuaded that it neutralizes the effects which might be produced upon their organs by the impalpable powder being involuntarily absorbed in respiration. Seeing the Doctors administer milk in abundance in cases of poisoning, the vulgar naturally conclude that milk must be a powerful and specific antidote, and attribute to it results obtained by other substances given to the patient, but not observed by them. In fact, milk is not an antidote at all. In poisoning, the object is to promote vomiting as much as possible, by plying the patient continually with warm drinks of any kind till the poisonous matter is expelled—and milk may be given till the Doctor arrives, although it has no greater efficacy than any other demulcent liquid.

Liquors.—Madeira wine, rum, and brandy, are supposed to be powerful digestives, and more wholesome than the sugared liquors, which consist equally of alcohol, or spirits of wine. And, indeed, aromatic liquors, rendered highly stimulant by an essential oil, such as aniseed, or gilliflower, are very inflammatory. But when sugar forms a part of the composition, the activity of eau-de-vie, which is the basis of all liqueurs, is less powerful, and the use of it consequently less dangerous.

Nevertheless it must not be imagined that the sweet liqueurs possess any digestive virtue. All ingurgitations of alcohol end by destroying the stomach which habitually receives them.

It is therefore considered wrong at the close of a good repast to drink strong liquors with the idea of facilitating digestion though that practice has often been recommended. The best way of securing a good digestion is to eat moderately. If we give ourselves up to the pleasures of the table, the French physicians say, we must drink water lightly flavoured with some drops of distilled water of orange-flower, or a little weak coffee, but not brandy!

Sugar.—Of all the products derived from vegetables sugar is the most extensive and the most used. Its soft and agreeable taste pleases almost every palate. It is equally acceptable to infancy and to age.

Sugar has had its supporters and detractors. Some have attributed to it nearly miraculous virtues, and by some it has been denounced as occasioning the most serious inconvenience. It is pretended that it heats, produces constipation, and thickens the blood. The truth lies between the extremes.

Sugar, mixed in a moderate proportion in our drink and food, forms a seasoning equally useful and agreeable. Dissolved in warm water, and taken after dinner, it is said to aid digestion. Under any circumstances, when moderately employed, it cannot be prejudicial. Its excess alone is dangerous. Sugar certainly possesses nutritive virtues, and may, to a certain point, during a short period, supply the place of ailiment more substantial. We see new-born infants nourished with sugared water, sometimes for seven or eight days whilst waiting for the nurse, without suffering any harm. Dr. Pinel speaks of a child which its mother could not suckle, and which during the first two months was nourished with food, so much sweetened as to consume two pounds of sugar a week, and the child was always perfectly in health. Dr. Lens mentions a little girl, who followed the same regimen, continued free from constipation, and advanced to the age of one year,—fresh, fat, and in an excellent state of health. A French Officer speaks of having travelled in 1812, from Moscow to the borders of the Rhine, without any other article of food, than a six pound loaf of sugar, of which he ate seven or eight ounces a-day.

But though the nutritious quality of sugar renders its use beneficial, that same quality is rendered hurtful by being pursued to excess. A young woman, the mother of a little girl, lived in the country and suckled the child herself. Sugar was then six or seven francs a pound (about five shillings) and the fond mother, to give a strong proof of her maternal tenderness, lavished upon her infant this costly article without stint or measure. She boasted that her child ate a pound of sugar a day! Sugar was wasted both in its beverage and in its food. Whenever she thonght the child wanted something to drink she melted two large lumps of sugar in a glass of water and gave it of the consistence of syrup. To justify this prodigality she repeated the saying of the learned Chaussier, whose fondness for Sugar is well known. "Sugar does no harm to any thing but the purse!" At the commencement, this system appeared to be followed with success. The child, like the one above mentioned, was fresh and fat, and seemed to enjoy the finest health, but at the beginning of the second year, when the time of weaning came, and other food was to be substituted for the mother's milk, it could not bear the change; its stomach rejected every thing. It was then thought necessary to return to the Sugar, and the infant, which did not find in it enough of elementary matter, died of marasmus at the age of fifteen months.

It is therefore a serious error to think that Sugar, taken immoderately, does not produce any inconvenience. It is with this substance as it is with things the most excellent. It must not be used without discretion. Beverage and food, moderately sugared, stimulate the appetite, but whenever we go beyond the bounds of moderation, the results are always pernicious.

Exercise after Eating.—After a good dinner it is customary to take a walk in the garden, or make a short pedestrian excursion into the country for the purpose of facilitating digestion. It is however a mistake to think that exercise invigorates the digestive powers. It tends on the contrary to impede, and interrupt them.

Repose is necessary at a time when the stomach labours to effect the decomposition of the aliment which it has received. All the vital movements should then be conveyed to the organ which fulfils this part of the animal economy, and the muscular power ought not to be exerted in such a manner as to prevent the waste of the fluids destined to produce the dissolution of the food.

Irritable and nervous persons, are subject to heat in the bowels, eructations and even to vomitings, when they are obliged to move immediately after their meals. Digestion, even when very good, renders slower the circulation of the blood, and more or less induces sleep. Animals of the most savage kind are disposed to sleep after eating. The carnivorous, whose stomachs are required to act strongly, have the greatest tendency that way. When a cat is satiated with food, it seeks for a convenient corner, and goes to sleep. The Spaniards and the Italians are in the habit of enjoying, after they leave the table, what they call the *Siesta*. In France, the workmen and day labourers lay down after dinner on the ground and go to sleep for half an hour. This practice which they are accustomed to follow, without having any notion of its advantages, is still efficacious as it gives time for the digestive process, and prevents that inconvenience which might occur from going immediately to work on a full stomach.

It is not necessary, therefore, to take a walk after a good dinner, and still less much exercise. If you must go out, let it be in a carriage, which is as comfortable as the repose of an easy chair. If on horseback, walk gently, but never increase your pace to a trot, which is worse than a gallop. And if on foot, move slowly and leisurely. These are the golden rules of a French physician. "But it must be observed," he adds, "that there are exceptions to these rules. All who are

of an irritable fibre, and have a tendency to apoplexy, should take moderate exercise after eating, though it would be a great deal safer for such persons steadily to avoid the perils of too free an indulgence at table."

On the Climacteric.—According to a belief, which is supposed by Aulus Gellius to have come from the Chaldæans, and adopted by Pythagoras, all the changes in us are influenced by virtue of the number seven, or by its multiples, and our bodies, or their renewals or modifications, regulated by the same number. At seven months the fœtus is strong enough to live. Seven months after birth the first dentition takes place; the second, at seven years. At fourteen, we arrive at puberty; at twenty-one years, the body ceases to increase in height, and the individual enters upon the period of youth. At twenty-eight, his manhood is complete. Between forty-two and forty-nine years women lose the exterior marks of fecundity. Man himself, experiences in his forty-ninth year, produced by the multiplication of seven by seven, a revolution which changes entirely the nature of his temperament. But the most formidable of all the years climacteric is the sixty-third, or nine by seven. If we do not die this year, we *must* suffer under some serious disease, at the termination of which we may hope to go on in a tolerable way to the seventieth year!

But these notions have no solid foundation. The facts too are erroneously given. The first dentition does not take place invariably at the seventh month. It is sometimes known to commence a few weeks after birth, and to be often retarded till the tenth and fifteenth month. Puberty is manifested, particularly in females, sometimes at twelve, eleven, and even ten, and often delayed, in countries where the women are exposed to hard labour and fatigue, till the eighteenth and twentieth year. In general, puberty is more or less precocious according to climate and modes of life, and it is the same of the period at which the females lose the faculty of reproducing. In hot countries the girls are frequently marriageable at nine years of age,* and cease to be fruitful at thirty. In the north, the difference is marked by a considerable number of years.

The same thing occurs in all the other phenomena said to affect the human body at particular times. Nothing happens at a fixed determined period. Nothing, of which one can positively predict the date either of approach or departure. All have a character of variability which depends on a thousand different causes. These phenomena are accelerated or retarded; they are accomplished, or interrupted, to be taken up again after a suspension more or less long; they are felt, or unperceived. In short, they vary in symptoms, in periods, in results, as subjects which could be so affected vary in temperament, humours, and occupations.

Thus then to dread a disease because one is approaching to 42, 49 or 63 years of age, is to fill the imagination with unfounded terrors, and render our existence miserable. It is time enough to attack the enemy in earnest, when he comes, but the morbid presentiment of an indisposition which may never happen, is very often the most difficult to cure.

Notwithstanding however all that has been said, and the little belief that can be accorded to climacteric years, there is a period of life, of which it is impossible to indicate the commencement or the end, in which we experience some notable changes in our constitution, and are menaced by serious disease. This epoch, which comes too soon, or too late, according to the disposition and passions of the individual and the circumstances under which he is placed, comprehends the passage from youth to manhood. When that arrives a man often finds himself deceived in his hopes; and all the bright illusions which constituted the happiness of early age entirely lost. It may be called the moment of disenchantment, of repentance, and truth. If we compromise its approach by inconsiderate conduct, for instance, by an improper marriage, we see with sorrow the abyss into which we are plunged; we fall into a state of melancholy, we become subject to illness, and we suffer that discouragement and those languors which shorten life, or fill up its measure with bitterness and regret.

Buffon has traced this period with a spirited pencil.

"It is at this age," says he, "that cares arise, and life is most contentious. He has arrived at a state, and has entered by choice or by chance on a career which he feels it disgraceful not to support, and often difficult to fulfill with satisfaction. He proceeds painfully between too rocks equally formidable. He is enfeebled by the efforts he makes and has to make, to shun them, and becomes discouraged and discontented. Experiencing the injustice of man he acquires the habit of considering it as an evil inseparable from human intercourse an inevitable infliction; and thinking less of distinction than repose, his heart gets har-

* See the Life of the Prophet Mohummud! Ayesha, his wife, the daughter of Abubeker, was only nine!

dened, and he easily falls into that cold indifference, that painful quietude, at which he would have blushed some years before. Glory, that powerful stimulus to all great souls, which we viewed from far as a brilliant object worthy of being obtained by distinguished actions and noble works, is to him a vain, deceitful phantom, without attraction. Indolence absorbs his faculties, and seems to offer to all, more ease, and more solid benefits than exertion. But disgust precedes, and ennui follows. Ennui, that dark and miserable tyrant over a thinking soul, against whose influence wisdom has no power."

"Moses mentions another year of danger, which is ten times seven; for it is said: "*The days of man are three score and ten*," and according to Herodotus, Solon was of the same opinion: He says to Crœsus: *Ego annis septuaginta humanæ vitæ modum defenio*: "and surely," Thomas Brown observes in his Enquiry into Vulgar Errors, "that yeare must be of the "greatest danger, which is the period of "all the rest, and fewest safely passe thorow "that, which is set as a bound for few or "none to passe." Varro divides the life of man into five portions. Hippocrates into seven. Solon into ten septenaries, because in each of them a man experiences some sensible mutation. But these are, more or less, the dreams of philosophy.

On Suckling.—The duty of suckling her children, is one which nature imposes most rigorously on a mother, but to say, like the philosopher of Geneva, that it never should be dispensed with, that in no case it can be dangerous or hurtful, that "the infant has to fear no new disease from the blood of which it was born"—is to advance a paradox very easily destroyed.

If we remained always physically and morally the same; if by a continual transmutation in our constitutive particles, our organs did not undergo at the end of a certain period of time, a total renewal; if our material being did not unceasingly change, the mother's milk would never be prejudicial to the child. But if these phenomena do make us continually a new individual; if our food, the air we breathe, and the occupations to which we are devoted, modify still more rapidly our being, and contract the germ of dangerous maladies, ought we out of respect for, no doubt, a sacred duty, to transmit to an infant a disease more or less dreadful, and out of maternal love, compromise its health, or abridge its existence?

The Philosophy which nature and experience do not justify is but a vain speculation. Can it be denied that a mother afflicted with herpetic or scrophulous diseases would hurt the health of a child by suckling? Would we not take it from the breast of its mother, and place it with a nurse full of health and vigour, whose milk would occasion its physical regeneration?

A young mother, who has not done growing, a wife afflicted with Phthisis Pulmonalis, put their own lives, and the lives of their children in jeopardy, in wishing to fulfil themselves a sacred duty, imposed by nature, but which nature itself has rendered to them ineligible and improper.

Of all others a young mother is not the most fit person to bring up a child. She falls into extremes. In wishing to give him a strong constitution, she covers him lightly, bathes him in cold water, and would actually destroy him by some ridiculous attention intended for his good. To render him secure from the influence of every variation of the atmosphere, his coverings and dress are doubled, and her tenderness makes him liable to a thousand perils even alarming to a child, of an age more advanced.

Antipathies of Children.—There are few children which do not betray symptoms of repugnance to some article of food. This repugnance is observed by their parents who, anxious to overcome so unreasonable a feeling, wait till their hunger is sharpened, and then present the aliment they are averse to, or punish them severely for the same purpose. There is both ignorance and cruelty in this conduct. Nature has created in us both likings and antipathies, of which we know neither the end nor aim, and which we may desire to control and conquer, without being always sure of success. Thus when a child is disgusted with a particular sort of food, the feeling depends upon an internal organization, of which we know comparatively nothing, and therefore that which is not received with pleasure may be thought not proper to digest, for it is allowed that the only aliments which produce good chyle are those which we eat with satisfaction. Those we dislike, and take against our choice, instead of being beneficial to the system, throw the animal economy into trouble and disorder. When not rejected by vomiting, they are badly digested, occasion diarrhœas, dysenteries, and other diseases. Besides, forcing a child to eat that which is disgusting to its taste and feelings, is absolute cruelty of itself, and injurious to its natural health. It is also a golden rule in medical practice always to consider the idiosyncrasy of the patient.

When a child repeatedly manifests a repugnance to any kind of food, that food ought not to be forced upon it. By little and little the child may be accustomed to

see it and smell its flavour without disgust. By and bye it may perhaps be induced to taste it, and thus, as is wisest in all cases, gentleness does more than violence.

Precautionary Remedies.— Individuals morbidly anxious about the least change in their health, lose no time upon any unusual feeling, in administering medicines to themselves. Others again in perfect health, think it necessary every spring and fall, and frequently every lunation, to take a purge or be bled, for the purpose, they say, of preventing the attack of a disease which would inevitably occur without that precaution, though at the very moment they are unassailed by a single unpleasant symptom. The Egyptians were accustomed to physic themselves regularly twice a month.

The periodical bleedings and purgings called precautionary, are so little required that we constantly see persons badly fed, badly clothed, and badly lodged, and daily at hard labour, reaching an extreme old age without ever having, during their lives, been purged or bled. The very idea of purging and bleeding at fixed periods such as the spring and fall, is just as absurd as it would be to cut your nails according to the phases of the moon. Yet, something of this sort once prevailed. An old author says: "Ungues Mercurio, Barbani Jove, Cypride crines!"—and—"piaculous it was unto the Romanes to pare their nayles upon the nundinœ, observed every ninth day!"

Plurality of Children.—Plurality of Children at one birth has frequently exercised the speculative understandings of Physiologists, and notions have prevailed respecting the proximate cause, of a very extraordinary description. In the preparation of these notes we have been occasionally indebted to foreign Incubrations, and we shall here bring forward a curious case of plurality recorded in an old French book of travels through Holland in 1687. The story may be said to comprehend a physiological as well as an historical problem.

"We had the curiosity," says Misson, the traveller, "to go to the village of Loosduyen, a league and a half from the Hague, to see the two brass basons, in which, it is said, 365 children of the Countess of Henneberg, daughter of Florent the Fourth, Count of Holland, were baptized! The story goes that this lady having reproached a beggar-woman with being the mother of so many children, the woman replied that she wished her ladyship might have as many as there were days in the year. Accordingly the Countess was brought to bed before the end of the year of 365 children, which were all baptized, and buried the same day in the Church of Loosduyen. This event is recorded at length on a tablet near the spot where the two basons are deposited. I ought not to omit informing you that all the boys were called John, and all the girls Elizabeth. Marc Cremerius speaks of a Polish lady, the wife of Count de Virboslaüs, who brought forth 36 children at once, in consequence of a similar imprecation."

A note further states, that "the historical fact respecting the birth of 365 children is to be found in Erasmus, Vires, Guicciardini, Christoval, Camerarius, Gui Dominique, Pierre d'Oudergest, author of "*Des Annales de Flandres*," and in many others, who speak of this accouchement, "comme d'une chose bien attesteé, et qu' ils orayent estre veritable." The annals add, that the 365 children were baptized by the Bishop Dom Guillaume of Treves, and that they died the same day with their mother. This was on the Friday before Easter 1276."

"Surius, Garon, and divers Chroniclers record the history of a lady of Provence named Irmentrude, and the wife of Isembard, Count Altorf, who being brought to bed of 12 sons, wished to drown eleven of them in the river. They add that Isembard, having met the woman who was carrying them, asked what she had got in her basket, when she replied that they were young puppies which she was going to drown. Isembard requested to see them, and having discovered the truth, took the eleven children, reared them up, and afterwards, at a proper age, presented them to his wife. In memory of this event, says the history, the family took the name of Welfe, which signifies a puppy dog in German, and they still retain that term.

"J. Pic. de la Mirandole II. states that a woman of his country, named Dorothea, brought into the world 20 children in two labours—9 in one, and 11 in the other.

"Albert le Grand speaks of a German lady who had 140 at once, and adds that it would not be difficult to adduce a number of similar examples."

Our traveller, further on, says—"I returned yesterday from Loosduyen, whither I had proceeded a second time, and I find that the inscription in the Church of this village differs from the annals which I before cited. The name of the Bishop who baptized the 365 children is here Guido, Suffragan of Utrecht, but in the annals, Guillaume, Suffragan of Treves. This variation, however," observes our traveller, "does not affect the truth, or probability of the fact. It is constantly the case that some diversity occurs in writing and speaking of a thing wholly true. Or it may be the fault

of the copyist. Above the inscription are the following verses—

En tibi monstrosum nimis et memorabile factum,
Quale nec a mundi conditione datum.

and under the inscription:

Hæc lege, mox animo stupefactus Lector abibis."

In Ray's "Journey through the Low Countries," the cause of this monstrous birth is somewhat differently stated. "This lady (the Countess) being about 40 years of age, and meeting with a poor woman that had *twins* in her arms, told her that she must have been dishonest to her husband, as not believing that two children could be got at once, at which the poor woman, being highly concerned, wished that she might bring forth as many children at a birth as there were days in the year, which was fulfilled in 1276." The same notice also refers to Erasmus, Cameranus, and others, and Ray adds, "and what is extraordinary, it is a thing well attested." And this *is* the extraordinary part of the story.

In Brown's Enquiries into Vulgar and Common Errors, published in 1646, the author adverts to the monstrous birth above described. Brown was himself a Physician.

"In one graine of corne appearing similarly and insufficient for a plural germination, there lyeth dormant the virtuality of many other, and from thence sometimes proceed an hundred eares: and thus may be made out the cause of multiparous productions. And, therefore, though wondrons strange, it may not be impossible what is confirmed at Lausdeen concerning the Countesse of Holland, nor what Albertus reports of the birth of an hundred and fifty, and if we consider the Magnalities of generation in some things, wee shall not controvert its possibilities in others!"

JAMES ATKINSON.

Barrackpore, August 5, 1834.

CASE OF AORTAL ANEURISM, WITH OPERATION.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Gentlemen,—Having seen no mention in any of the Indian papers of Dr. Murray's grand operation for Aneurism, at the Cape last January, and having his permission to tell the tale here, though he means to be his own reporter at home, I beg to send you an account of the case, and of the operation at which I was present.

The patient was a Portugeuse, of about 40 years of age, a pale, thin, man, intelligent and sensible, and with general good health. He had been a sailor, but for 13 years past was a travelling merchant about the colony. He was admitted into Somerset Hospital the 23d of January 1834, and presented the following symptoms. A large firm circumscribed tumor in the right iliac region, the circumference of which is 14 inches, its greatest elevation in the centre, above the level of the abdomen, appears about 3 inches. It extends from Poupart's ligament to within half an inch of the umbilicus and linea alba. The ear laid close to the tumour distinguishes a deep-seated, strong sonorous pulsation, synchronous with that of the heart, each throb ending in a thrilling or whizzing sound, but there is no corresponding expansion of the tumor although some months ago its throbbing was sufficient to raise the bed clothes. He experiences no pain at present in the tumor, but along with a general deadness of the limb, he complains of acute pain in the knee and along the nerves of the thigh and leg, and describes a feeling in the skin as of flies or worms creeping over it.

The tumor was first perceived about seven months ago, and was attributed to cold taken from bathing when greatly fatigued, however it gave him then very little uneasiness, and was supposed to be a bubo, and treated with leeches and ponltices. About three months ago, it increased considerably and gave him great pain, but it was not until 5 days ago, that he became alarmed from its rapidly increasing size, and the violent and acute pain in his knee.

On admission into Hospital, he was bled ℥xii. took some laxative medicine, had a cold evaporating lotion and a roller applied to the limb, and was enjoined horizontal rest—dieta aquea, digitalis, &c. &c. the temperature of the limb was not ascertained.

During the following day he was seen by several of the medical men of the Cape, and the question of an operation was discussed. The general opinion was that it should not be undertaken except as a last resort—a decision which is greatly to be lamented since from the rapidly increasing size of the tumour, no reasonable hope remained of a spontaneous cure, and every hours delay not only added to the difficulty of the operation, but took from the probability of its suceess. In the evening the tumor was flatter but more diffuse—the thrilling sound in it less perceptible, the superficial veins of the limb were swollen and the circulation in them languid. No

pulsation could be felt in the femoral artery, pulse 96.

The cold applications and roller were continued.

The morning of the 26th.—On removing the bandages the limb was found very cold, of a blueish mottled colour, not sensible to stimuli of any sort below the knee—no perceptible difference was to be seen in the tumour, but the thrilling sound could not be discovered at all in it. He had passed a restless night, the countenance was shrunk and hypocratic—the breathing hurried and anxious, the pulse 126, small and weak.

Frictions, with warm oil and flannel, were employed to the limb, and camphor Julep, with a little warm wine, ammonia, &c. were administered.

At noon, the colour and circulation of the limb were restored except in the foot, the leg continued insensible below the knee, the tumour now extended fairly across the linea alba—and by midnight, it measured not less than half an inch across that line, and reached as high as the umbilicus—there was a blueish discolouration of the foot and back of the leg, but the thigh and knee, and forepart of the leg, looked well—and the circulation went on, though languidly, in the superficial veins—the pulse was 120, tolerably firm, and the man very composed, and in good heart.

It being now evident that one of two fatal terminations must shortly occur, either from gangrene, or bursting of the tumour, it was agreed that the operation could be no longer delayed, as the only remaining slender chance of saving the man's life.

Its object was of course to tie the right common iliac artery, if possible—and if not, the aorta itself above its bifurcation. As the tumour, however, from its size, shape, and position, precluded the possibility of cutting for the vessel on the right side, this proceeding was to be attempted from the left, which course offered one advantage, that of bringing the aorta considerably nearer the operator, and avoiding the intervention of the vena cava which would thus be on the OFF side.

To have tied below the tumour could evidently be of no use whatever, as the circulation in the femoral artery had already been long suspended: and greater apprehensions indeed were entertained for the sound limb than the other, as in it, a circuitous though tardy circulation, had already been established.

Sir Astley Cooper's plan of cutting down through peritoneum and abdomen upon the aorta, having failed in his own hands, and those of Mr. James, of Exeter, it was resolved to practise the method employed by Mr. Crampton in tying the common iliac—that of reflecting the peritoneal bag entire, until the vessel is got at. An operation which Dr. Murray had performed very recently with success—and by which method he felt confident that he could tie the aorta itself, although he did not think it would be possible to cross it so as to tie the right common iliac.

A semi-lunar incision was made through the integuments, about 10 inches long, commencing opposite to the cartilage of 9th rib, and continued to the anterior inferior spinous process of the ilium—the fleshy fibres of the two oblique muscles were then successively divided, with infinite care and dexterity—and, finally, the tendinous fibres of the transversalis, until the peritoneum, was laid bare for the whole extent. In performing this, there was occasionally considerable risk of puncturing the peritoneal sack owing to the spasmodic workings of the diaphragm, and recti muscles forcing the bag into the wound.

The hand was now introduced flat between the peritoneum and abdominal parietes, and carried backwards, separating these parts gently asunder and passing through the loose cellular texture which unites them.

Opposite to the 4th lumbar vertebra the fingers entered an extensive soft blue mass, which at first was suspected to be gangrened peritoneum—but was found to be caused by some ecchymosed blood diffused in the loose cellular texture, which it distended—and from which as the fingers advanced a red serous fluid oosed, which partially obscured the parts.

The left common iliac, the ureter, &c. were successively found, viewed, and passed, and following the iliac the aorta was reached readily and safely, and was seen by us all, thumping strongly, and of enormous size.

The aneurismal tumor now was felt resting on the finger, so that all idea of crossing over to the right iliac was in vain, and the operator proceeded by the help of a long blunt hook and the nail of the middle fingers, to scratch a passage for his needle round the aorta. This was at length accomplished, the needle being thrust from within outwards, the ligature seized by a long forceps, and the needle withdrawn.

The vessel was very carefully examined before this was done so as to be quite sure that no twig of nerve, or foreign fibre was included—and it was then firmly tied. The patient made no complaint whatever at the moment—the pulsation in the left femoral and in the tumor immediately ceased—the edges of the wound were brought together by three sutures and adhesive plaster: no difficulty whatever

being found in retaining the parts in their normal situation.

The pulse did not immediately indicate any change—there was no agitation of countenance, no oppression of breathing, nor did any extraordinary symptom take place. The man expressed great satisfaction when the operation was over—and at his earnest request was indulged with a cigar before removal from the operating table. The coolness, composure, and dexterity of the operator were beyond all praise—not a tea-spoonful of blood was lost altogether, and the operation did not occupy more than half an hour.

About 15 minutes after its conclusion the man felt faint, and the pulse became irregular;—from this state he recovered by a little wine and water; he then complained greatly of inability to make water—and the bladder was emptied by the catheter without relieving the symptom, though he was sensible of its introduction. He retained the power of voluntary motion, and the sensibility to external stimuli to the same extent as before in both limbs—but complained that his left leg was now as "sick as the other, and of no use to him."

Half an hour after the operation the pulse was regular, firm and compressible, 116—the circulation in the veins of the right limb seemed to go on as before the operation—but none was observable in the left limb. He suffered a good deal from cramps in the calves of both legs—an anodyne draught containing Black Drops, No. X. was ordered.

Monday, 6½ A. M.—Six hours after the operation. He passed a restless night—much troubled with flatus and cramps, p. 120—the sensibility of both limbs the same as after the operation. Temp. of axilla 99°. T. of right ham 89°. Tem. of left ham 87°, the livid color of the right foot and leg was more marked, and towards noon it extended over the buttocks.

In the evening he began to sink rapidly and died at midnight, 24 hours after the operation.

On examination the ligature was found to be placed one inch below the inferior mesenteric artery, and 4 lines above the bifurcation of the aorta—the aneurismal tumour extended from 1½ inch below Poupart's ligament to the right kidney—where its walls were thinnest, the disease seemed to have belonged chiefly to the external iliac, as the common iliac was not at all distended, and the origin of the internal iliac but slightly involved.

The enormous tumour was caused by the accumulation of rapidly forming additional layers of coagula—the external of which were of a perfectly fibrous, firm, nearly colourless texture—and the internal layers formed a very dense reticulated structure. The dilatation of the femoral artery below Poupart's ligament partook of the character of true aneurism, the line of demarcation between it and the diffused aneurism in the abdomen being marked by that band. Neither the lumbar nor mesenteric arteries seemed to have at all enlarged—and coloured injections did not pass into the vessels of the lower extremities or pelvis.

A very good preparation of the tumour, and of the vessels in its neighbourhood, and a respectable drawing were made by Mr. Bickersteth the House Surgeon, which will doubtless appear in due time along with Dr. Murray's account and observations upon the case.

I need hardly say that the result was considered by most to be conclusive and final against the future performance of the operation in question. Although I cannot help thinking that had it been performed 30 hours sooner when so many favorable circumstances combined towards its success—and the dangers to be apprehended on the other hand, were as certain as they were eminent, the result might have been different.

In such cases however in general the question is not what might be done, but who will "undertake the perilous attempt," and the Surgeon, who at such a moment with the consciousness of ability to act has the calmness to decide against operating, until he is satisfied that death is inevitable without it, displays as much magnanimity as humanity.

Your's, &c.

D. STEWART, M. D.

Civil Staff Surgeon.

WISE ON THE VITALITY OF THE BLOOD.—No. V.

Terminations of Simple Inflammation.

When a strong individual is attacked with local inflammation, the symptoms, after an uncertain period, sometimes decline and disappear, without any unusual evacuation. This occurs from the consolidated blood being again restored to its usual fluid state, and the vessels of the part absorb what had been effused, and assume their natural offices. This forms the termination called *Resolution*. In many cases this takes place after an increased secretion from the affected vessels; in consequence of blood having been removed locally, or from the general

system, or the employment of other antiphlogistic remedies.

b. Adhesive inflammation is often the most favourable termination that can occur, as it separates dead from living parts, prevents the introduction of noxious fluids into the system, as of pus, &c.

When a serous surface inflames, the natural secretion is first augmented in quantity, and by the increased deposit of coagulable lymph false membranes are formed. This is generally found uniting the two parts of the inflamed membrane in contact with each other; by which the coagulable lymph prevents the spreading of the inflammation and suppuration, and the introduction of morbid secretions into the system. When first secreted the lymph is soft, but becomes denser, forms a bond of union between the parts in contact, and becomes organized by the formation of new vessels. This M. Beclard supposed he has proved by thrusting at hazard an injecting pipe containing mercury into a false membrane; a set of arborescent canals are injected, the trunk of which is in the centre of the adhesion, and the branches like the vena-portarum, distributed on opposite sides. (Anat. Gen. p. 195.)

When simple incised wounds are healed by adhesion, the cut vessels contract and retract into the cellular tissue. The effused blood coagulates, and in part condenses, filling up the divided vessels; inflammation is produced in the part by the irritation of the injury which is followed by an increased action in the arteries and secretion of lymph, which, with the consolidated blood, unites the cut surfaces, while the coagulated portion forms a scab, that separates when the wound is cicatrized.

A more intimate knowledge of the laws which regulate this process, has considerably improved the science of modern Surgery; and the best means to attain the adhesion of parts, is a point of the greatest practical importance, and one in which there is still a considerable difference of opinion among practical men. The result of some careful examinations has led me to believe that adhesion is best attained by removing the coagulated blood, and allowing but little of the *consolidated* portion to remain, as the process by which it is changed, and converted into the cicatrix is slower than the union which takes place by the effusion of coagulable lymph. On this account, when portions of consolidated blood have been removed by cleaning the wound, and it is exposed to the air for an hour or two, it is then brought together at a time when the determination of blood to the part, and the secretion of glutinous lymph powerfully promotes the union. The sides of the wound are to be supported and retained in contact by sufficiently long straps of adhesive plaster and bandages. In a large proportion of cases this method of cure is preferable to the use of the needle and ligature; as the less the circulation is increased in a part the better, beyond what nature employs for the adhesion of the part.

Should coagulated blood be allowed to remain in a wound it acts as an extraneous substance, which, if in small quantities, may be removed by the neighbouring living parts; but in large quantities, when the system is weak, it putrifies, and the irritation it produces prevents union.

When the wound has been produced by a blunt instrument so that the part is much bruised and lacerated, and its vital force thus diminished; the consolidation of blood will be in small quantities, and what is effused will be more liable to die. Such causes of irritation produce a considerable degree of inflammation which is followed by purulent secretions.

In some cases of great weakness, or when there has been extensive laceration of soft parts, wounds do not adhere though brought together; from the power of life being so low as not to admit of the increased action, or slight inflammation, now indicated by the increased and modified secretion necessary to produce union. This want of aptitude to union will likewise be modified by the tissue affected. Canals having external openings rarely take on adhesion when inflamed; and usually terminate by the effusion of an increased quantity and modified quality of the secretion of the part; and when more severe, the inflammation produces softening and ulceration of the tissue. This difference in the adhesion of different tissues may in some cases be taken advantage of in the healing of some wounds, more particularly those of the intestines. In the 5th Vol. of the Transactions of the Medical Society Calcutta, a short paper is inserted (p. 145) on this subject. In that Essay I remark that as inflamed serous membranes—quickly secrete coagulable lymph so as to connect them to the neighbouring parts; we may in this way explain the manner in which the intestines are often wounded and healed without any bad consequence, by the adhesion of the serous surface round the wound to that in contact with it. By this mean extravasation of the contents of the gut, and its fatal consequences are prevented. The same adhesion occurs when the thorax has been wounded so as to prevent extravasation into the cavity of the sac of the pleura. "I made," says John Hunter, "an opening between the ribs into the chest of a dog, and touched the edges of

the wound all round with caustic to prevent it healing by the first intention. The dog died on the eleventh day after the opening; and I found the collapsed lungs passing directly across the chest, and attached to the inside of the wound all round, so that they excluded the cavity of the chest from all external communication."* In introsusception the same adhesive process takes place between the two serous surfaces of the gut, at the commencement of the included portion, which is removed by a slow ulceration at the part where the enclosed joins the included portion. In wounds of the intestines the treatment must vary with their size. When small the wounded part may be returned into the abdomen, but when the gut is distended with liquid and the patient weak, so that the adhesive inflammation is slow in developing itself, the part is to be taken up by a pair of forceps, and the wound encircled by a firm cat-gut ligature, which is to be drawn tight so as to divide the mucous membrane, and muscular coat of the included part. The ligature is then to be cut short, and the gut returned. A knowledge of this method may enable us, in some cases, to reduce portions of strangulated Hernia, as in the following case:

A young man was gored by a wild bull, and a ragged wound, about three inches long, was made a short distance above the anterior and superior spinous process of the ilium. It was in an oblique direction, and penetrated into the abdomen. For three days nothing seemed to have been done for this unfortunate person, until he was brought to Hooghly from a great distance. When I saw him, he was rapidly sinking; his pulse imperceptible at the wrist; his extremities cold; and his countenance haggard, and expressing a degree of indescribable misery. The individual was young, and his constitution good, and as the only chance of saving his life, I endeavoured to return the protruding intestines as soon as possible; which seemed to contain the largest proportion of the small intestines considerably distended with air, and tightly bound by the thick margin of the wound. The upper part of the protruded intestine was much distended, and of a dirty yellowish-coloured fibrine which had united the convolutions, and when they were separated from each other, the surface of the intestine between them was of a deep red colour, and at different distances small portions of light yellowish granular-looking matter appeared, which seemed to be the progress of the inflammation in these parts to suppuration. The convolutions underneath were of a red colour, less distended with air, and apparently had descended at a later period. Having enlarged the wound with a probe-pointed bistoury, I endeavoured to return the intestine into the abdomen; but found great difficulty in doing so, owing to their size; and the fear of injuring a surface so inflamed, and the tissue so very soft, and easily torn. In this case expedition was necessary, and the only means of gaining this object was by making a small oblique aperture at the lower part of the distended gut, when a large quantity of dark-coloured fluid and air escaped; and then the whole intestine was returned without further difficulty.

This case proved fatal from the state of exhaustion to which the person was reduced by the extent and severity of the disease; but, I believe, the practice was that, which was best adapted to the circumstances of the case, and as in the present instance, I do not consider the application of the ligature necessary, when the gut had been emptied, and in such a state of inflammation, when adhesion would immediately occur so as to prevent effusion. When the wound is extensive in an intestine, the serous edges are to be brought together and retained so by means of sutures. When dark mortified looking spots are seen the gut is to be returned, as the inflammation round these spots will ensure adhesion, and prevent extravasation.

Union not only takes place between the divided surfaces of parts, but in general, tissues have so much vitality that surfaces belonging to different parts of the body when recently divided and brought together adhere. Mr. Hunter has recorded several curious cases of this kind in which the spurs of cocks, the teeth of animals, &c. were engrafted into different parts of the bodies of other animals, and grew in their new situation. The same union is found to take place in the human subject; so that the cut surface of the arm, or any other part of the body, if retained for a certain time in contact with the scarified surface of another part of the body, unites. In like manner teeth have been transplanted with success from one jaw to another. This principle has been advantageously employed for covering an exposed part of the surface which had been removed by disease. In such cases a portion of healthy skin and sub-cutaneous tissue is dissected and only left adhering at one point to the part: and then applied to the place to be covered; after its surface had been scarified. The skin of the nose destroyed by disease may thus be covered again with

* On the Blood, Vol. 2, p. 59.

healthy skin detached from the forehead or arm.

Adhesion which is generally so useful in many cases may be productive of great inconvenience by uniting parts that are accidentally in contact with each other. In cases of burns near joints much care is required to prevent the union of the inflamed parts brought near each other, and the contraction which is produced by cicatrization.

This contraction in wounds, and formation of new skin takes place from the circumference of the sore when healthy, and when less so from one or more points towards its centre. When new skin covers the whole of the wound it is said to be cicatrized; in which state it is paler, smoother, and has less vital energy, for which reason it is more liable to be again affected with disease.

The formation of *Callus* presents a more complicated process of reparation, than that of soft parts; and appears to be an additional effort of nature to produce bone beyond that of healing wounds made in soft parts.

By the violence which fractures a bone, numerous blood vessels are torn, and an effusion of blood takes place around its extremities, and into the interstices of the surrounding cellular membrane and muscles. This blood consolidates, if the quantity be not great, and the individual strong, and surrounds the broken extremities of the bone. The irritation which such an injury produces, causes a determination of blood to the part; the muscles and cellular substance become redder than usual, and the periosteum thicker and more vascular. This congestion is accompanied with an effusion of coagulable lymph, or of a gelatinous looking substance, which forms granulations; these become continuous, with others, formed by the internal periosteum and extremities of the bones, and with the consolidated blood. When these deposits are torn off, it is in layers which are thickly interlaced with vessels, giving it a fibrous appearance.

Such changes were well marked in the case of a boy, who died of pleuritis, 22 days after a fracture of the humerus. The periosteum, was easily separated from the callus, which was left rough, and perforated with holes for the passage of the torn vessels, which passed from the periosteum to the recently deposited bone. When traced to the broken extremity, the periosteum was thickened and softened, and at length terminated in a cartilaginous substance, mixed with spiculi of bone, when it could no longer be traced.

The consolidated blood around the fractured bone becomes quickly changed from a red homogeneous mass, to a pale coloured dense fibrine, which unites with the lymph secreted by the periosteum, and forms a mass which becomes like cartilage, mixed with gelatine, in appearance. This is the nucleus in which bone is secreted; which depends on the degree of vascularity in the tissue of the part. The periosteum being the most vascular part engaged, bone is deposited in the largest quantity into the secretion upon its surface, and advances until it meets that formed in its other broken extremities. The internal periosteum, likewise, deposits bone, and extends slowly outwards while the consolidated blood, which filled up the space between the broken extremities is soon changed into a cartilaginous substance, in which ossification takes place. The cure is completed when the broken extremities of the bone have been united, by the callus which is larger than the original bone; as it protrudes, and extends inwards, until it forms a solid osseous mass.

Should the constitution of the individual, who has received the injury, be very weak, or the fracture comminuted, and the parts lacerated extensively, it produces a considerable effusion of blood, which is often only partially condensed, or when the inflammation is too severe for the formation of consolidated lymph. In this case a secretion of serum follows from the neighbouring parts when adhesion has taken place, which serum mixing with the fluid blood, forms a dark liquid, surrounded with irregular portions of it consolidated, which is of a dense consistence, and fibrous appearance. In such cases the bone, instead of being encompassed with a vascular lining of lymph, is reduced to an irregular serrated surface. We may expect to find such an appearance when a fluid is detected near the fracture, about a fortnight after the accident, without much previous inflammation. This fluid is slowly mixed with pus, of a more or less healthy nature, according to the circumstances of the case. When this has been discharged the cure is accomplished by the process of granulation.

C.—Suppuration.

When the symptoms of inflammation continue beyond that which forms adhesion; the consolidated blood in the vessels, and the secretion into the cellular tissue, change their appearance at the most inflamed part. Small spots become of a pale yellowish colour, soften, and are changed into minute collections of pus, which unite as the intervening tissue softens, and is removed by absorption; by which it approaches the skin. By this ulcerative process, the disorganized part is thrown off in the same

way as a sphacelated part is removed, from the system with the purulent secretion.

The abscess when formed is found bounded, by the cellular tissue, beyond the inflamed part, taking on the adhesive inflammation, in which state the coagulable lymph of the secreting arteries circumscribes the cavity, and a vascular sac is formed, of coagulable lymph, which is covered with a false membrane in which the pus is contained, and in which absorption and secretion are very energetic. The part which was the centre of the inflammation is thus filled with pus, which externally becomes soft and prominent. When the severe inflammation in a part has been more diffuse, absorption occurs around, rather than in the part most inflamed. The vessels of the part are closed up with consolidated blood, beyond which absorption occurs separating the dead part or *core*, which is more or less reduced in size before being discharged with the pus.

Suppuration in a considerable organ is indicated by the throbbing sensation produced in the part, with coldness or shivering, succeeded by a dry heat of the skin, and quickness and hardness of pulse. These rigors recur at irregular periods, and after the secretion of pus the swelling, hardness, and throbbing of the part decreases, and the febrile state diminishes. This mitigation of the symptoms is particularly evident, when the inflammatory symptoms were most severe.

As capillary vessels are the seat of inflammation so suppuration occurs either from their diseased action in the cellular tissue, or secreting surfaces; or in all tissues into the formation of which they enter. In such cases the secreting arteries instead of throwing out serum, as in health, or serum and lymph, when in a high state of action; now secrete a modified kind which changes into pus.

The causes which hasten suppuration, are the degree and nature of the cause producing inflammation, wounds, the lips of which are not closed, a bruised wound preventing adhesion, or when parts have been so lacerated that their vitality is destroyed, which must be removed in the same manner as when a foreign body in a wound before adhesion takes place. In other cases the unhealthy constitution of the person, or a critical abscess, towards the termination of some dangerous disease, often promotes suppuration.

The tissue affected has an influence in producing suppuration. When a mucous membrane is affected with a certain degree of inflammation it secretes purulent matter. Cellular and serous tissues when inflamed are more likely to terminate in effusion; but, when chronic, it may become purulent.

In non-secreting parts suppuration is more apt to occur quickly, when the inflammation is acute, than when chronic; when the part is near the heart, than at a distance from it; in children, than in adults, and in the adult, than in the aged. Glands require longer time to suppurate than any other organ inflamed in a like degree. In the lungs tubercles are the product of a certain degree of specific inflammation, by which they are softened, and terminate in purulent collections. Tendons do not seem to admit of suppuration.

When an abscess is opened in an early stage it is found to contain a mixture of serum, coagulable lymph, and some purulent matter; and the abscess is said not to be ripe. In such cases the proportion of these ingredients will depend on the weakness of the part, and constitution, and the stage at which the abscess is opened. The following case is an example of an abscess in a weakly constitution. I had under my care a very weakly child, who received a hurt at the extremity of the thumb, which inflamed, and suppurated. A little pus was seen under the skin, with diminished redness around it; and the following day the secretion was much increased, but from the lessened inflammation, was found to be principally serum. Had this patient been strong, serum would have been secreted first into the cellular substance, and as the inflammation advanced, have terminated in suppuration, until the reproductive process had removed all the diseased appearances. These symptoms are explained by appearances which may be always observed on an external surface, secreting pus. When this is removed by a fine sponge, it will be found that a serous fluid is first secreted, and according to Sir E. Home, the globules are formed while it lies upon the surface, requiring in some instances fifteen minutes for its conversion into pus; which is modified by the vital act that produces it, more particularly its degree and nature. When the body is strong, or inflammation intense, the serous secretion quickly changes into pus; but when the system is weak and inflammation subacute the pus is thinner, and is said to be less healthy. These appearances are well marked when a serous sac is inflamed; at first the natural secretion is increased, and contains only floccula of lymph; but if more intense, the secretion becomes purulent.

It appears to be a law in the animal economy, that not only the vessels secrete their fluids by a vital act, but also that the vitality of the part acts in bringing the secretion to a state of maturity. This is

the only way I conceive that we can explain the manner in which the different parts of the body are built up, peculiar secretions formed, and injuries restored. In infancy the tissues are in an imperfect state of developement; by the extremities of arteries the peculiar fluids are secreted, which by the vitality of the part, are changed into their respective tissues, in the same manner as the peculiar secretions are formed, which differ so widely from the circulating fluids. It is in the same manner, that by a certain degree of inflammation, a peculiar thin, clear secretion is formed resembling lymph, and changed by the vitality of the part into pus; which is modified in its nature and properties by the cause, and part affected. In a very short time it changes to a limpid consistence, or to a fluid the thickness of cream; and from a pale white appearance, to a white, yellow, greenish, or red colour: varieties which seem to depend on slight changes in their principle constituents. These changes are of the same nature, as those which occur in the blood of the ova. When first formed the blood in the yellow membrane is of a transparent appearance in which globules are formed, and changes from a yellowish to a brown, and then becomes of a red colour. It is in the same manner that milk is formed, and it is very probable that the use of lymphatic glands is to modify their contents by producing globules, &c. so as to render it in a fit state to be received into the circulation.

As inflammation can always be produced by a certain degree of irritation, so its consequent pus may be produced, and kept up for any time, by producing the necessary degree of inflammation as by an issue, &c. As this inflammation decreases the secretion becomes of a serous quality. In like manner, after an abscess has been opened, it secretes thinner pus than was formed in it when opened, and as the inflammation diminishes, and the cavity contracts, serum is evacuated until it heals up.

When the inflamed part is highly organized, it soon diminishes by the absorption of the parts, and the secretion and absorption of the contents of the part. When the part affected is not so highly organized, and the inflammation removed with more difficulty; its symptoms continue after the abscess is formed; as around ligaments, bones, &c. In some cases abscesses are absorbed, and it is probable that the pus is removed in a similar way as when secreted; and thus undergoes a considerable change in its passage to the vessels of the part, and admits of its being absorbed in considerable quantities. Without this change in the properties of the pus the person would probably be always destroyed on its entrance into the circulating system.

D.—Ulceration.

The balance between the action of arteries or secreting vessels, and absorbents is continually changing; in order to answer the purposes of the constitution. In the young, the secreting vessels are more active, so as to perfect the bodily frame; in the healthy adult the secreting and absorbing vessels are in proportion to each other; while in old age, the secreting vessels are weaker than the absorbing; so that in decrepitude the body is found wasted, and even the bones thinner, and weaker than in the adult.

In disease, the natural balance between these two sets of vessels is often changed from their natural state. In inflamed parts, the secreting vessels become morbidly active, and a swelling in the part is the consequence, and if locally severe, and long continued, the central portion loses its elasticity, softens and dies. Should the irritation continue, the absorbents become more active to separate the dead part, and an open secreting sore, called an ulcer, is formed. When long continued strong pressure has been applied to an external part of the body, it is no longer able to perform its functions; and the absorbents remove the part forming an ulcer. In like manner, such parts as are more deficient in the active powers of life, or are at a distance from the heart, soonest take on this action: and parts of the least importance to life, are, for the same reason, soonest removed, as the cellular tissue, &c., while more important parts as blood vessels and nerves are left to the last. Such differences are owing to the degree of vitality in the part. Thus the action of a strong original formed part, is in a healthy state much less liable to ulceration, than a weak newly formed part, which is disposed to ulcerate by slight stimulus.

When natural circumscribed cavities are exposed they often inflame, suppurate, and granulate, without any loss of substance. Ulceration, therefore, although a general, cannot be considered as an invariable consequence of inflammation.

When an ulcer is examined with care, it will be found that the inflammation diminishes towards the circumference of the sore, when the adhesive stage of inflammation reddens and swells its margin; and as this precedes ulceration, it prevents the occurrence of hemorrhage, or the introduction of noxious secretions into the system.

In a less healthy state of such sores, the surrounding adhesive inflammation is not so well marked, and a more liquid sanious discharge takes place, and hemorrhages are liable to occur.

E.—Granulations.

When the surfaces of a divided part of the body have not united by adhesive inflammation, suppuration is established, and the usual loss of substance is made up by the secretion of a coagulable lymph, which becoming organized, forms granulations, and by their union the wound is said to heal by granulation. When carefully examined, they are found to consist of small red, florid, and irregularly rounded points, elevated above the inflamed surface, and inclined towards the periphesis of the body, and the centre of canals, when they line passages from ulcers. The size and colour of granulations vary considerably, and indicate their nature; being healthy when their margin is rounded, and of a small size, and the surface of the sore more equally florid and convex, and the discharge from the surface pale and thick. When the granulations are unequal and of a large size with margins hanging or turned out, of a pale or dark red colour, and discharge a permanently thin secretion from their unequal surface, they are said to be unhealthy.

The formation of granulations seems to depend on the secretion of the arteries containing more coagulable lymph than is alone required for the formation of pus; so that some of the secreted fluid is deposited upon the surface of the part forming granulations, and another portion is changed into pus. The deposit of coagulable lymph consolidates and becomes so vascular, as to bleed upon being roughly touched from the formation of inherent vessels. These granulations are the same wherever produced, but after becoming organized, by their vitality they change into a tissue resembling that of which they supply the place.

Granulations have naturally a strong inclination to unite to fill up the cavity, and contract so as to diminish the cicatrix. When the part is less vital or is kept pendant so that the circulation is impeded; the granulations become of a dark colour, and have less inclination to unite: in consequence of this slowness of the circulation in the new, and weak part.

When granulations form in deep abscesses they shew rarely much disposition to granulate as long as the opening is small, when a sanies and not a purulent discharge takes place; and even when pus has been formed, unless the abscess is opened freely, the secretion becomes thus unhealthy.

So much do granulations appear to depend upon exposure of the part to the air, and to the form in which new surfaces are defended from external objects, and for repairing parts; that when internal parts in a healthy individual slightly have been torn, and the divided surfaces kept separate, pus is not secreted. In these cases coagulable lymph fills up the deficiencies, consolidates, becomes organized, and undergoes changes which fits the part for its particular functions. This method of reparation is seen in the union of the fractured patella, olecranon, and ligament.

F.—Mortification.

The last manner in which healthy or accidental inflammation terminates, is by the death, or mortification of the part. This generally occurs when the inflammation is so severe, and the consolidation of blood in the vessels so general in the part, as to destroy its vitality, increase the violence of the inflammation, and render it of a general or erysipelatous nature; such as severe burns, extensive wounds, frost-bite, &c.

When this termination of inflammation is threatened, the part becomes paler, softer and more flaccid, the throbbing pain changes to a burning heat; the colour becomes more livid, and at length black; the pain and sensibility cease; the pulse is frequent and soft with great depression of strength; the cuticle separates into the vesicles which are filled with a yellowish red or brownish coloured liquid, the tissue of the part softens, and the dead part separates from the living by an ulcerative process. The inflammatory action by which this is accomplished, affords a beautiful example of the power of nature in separating dead from living parts, while it prevents bleeding even when trunks of vessels are involved. When a limb is in a state of mortification the different tissues die proportionally more quickly, in the inverse rates of their vitality. So that bones, ligaments, cellular tissue, muscles, nerves, and blood vessels, will be the order in which they are destroyed. By the irritation which the separation produces in the neighbouring parts the blood consolidates in the vessels. In this way we explain the red circle of inflammation which forms along the border of the living part, as when superficial, it separates; in which after a period of time, varying according to its nature, slight fissures may be observed, which join and form small ulcers, from the absorption of the living parts which remain united to the dead or sphacelated part. These small ulcers unite, and extend deeper, as the dead skin retracts, and the separation advances more quickly in the order of the vitality of the different tissues. A sanious discharge takes place from the ulcer, which becomes mixed with pus, as the surface enlarges. The dead part has then the smell of putrefaction.

Mortification sometimes produces such debility, that before any attempt is made by nature to stop the disease, the patient is destroyed.

The explanation of this vital process is very evident, from the well-established fact, that ulceration is always preceded by adhesive inflammation, although its degree will be modified by the powers of the system. When weak, or inflammation very severe, the purulent secretion is more extensive than the system is able to defend itself from, by the adhesive inflammation, on which account the morbid fluid is thus admitted into the system, and the patient dies. The same is sometimes the case, when a member mortifies from any cause; but when the person has a strong constitution, the adhesive inflammation is sufficiently powerful to form the proper boundary; and large portions of the body are sometimes thus removed. In these cases no hemorrhage occurs; and even when the assistance of the Surgeon is required, and a limb so affected is removed above the inflammatory redness, few or none of the vessels bleed. This is from the adhesive inflammation, which, in the vessels, produces a consolidation of blood; as represented in Fig. 2d, where *b* forms the adhesive, *e*, the suppurative, and *g*, the ulcerative inflammation. This consolidation of blood will often extend a considerable distance from the part ulcerated, and will vary according to the size of the vessels, the number of their branches, state of the blood, and the constitution of the individual. I have seen examples of very extensive consolidation of blood having taken place in different parts of the body, forming the first stage of sphacelus, or the process of removing a part when mortified.

DR. BURT'S CASE OF ANOMALOUS AFFECTION IN A NATIVE PATIENT.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—As cases similar to the one I am about to transcribe, and which came under my care sometime since, are not, I believe, frequently occurring, I have much pleasure in placing it at your disposal.

I have at present under treatment an interesting case of Glossitis in a child, four years of age, which I may probably send you the particulars of at some future period.

Your's faithfully,

T. W. BURT.

Furreedpore, July 8, 1834.

June 26th.—About 4 o'clock this afternoon, I received a message from Mr. ——, requesting me to go to his house as quickly as possible, as one of his servants was taken suddenly ill and in a very extraordinary manner. On my arrival at the house I found a moderately robust Native, æt. 30 years, lying, or rather reclining on pillows, labouring hard for breath; and his countenance betraying great anxiety. I was informed that previous to the present attack, he was in apparent good health, and had been in attendance on his master. About ½ after 3 o'clock, P. M., he was sent from the house to the kitchen (about 30 yards distant) with a message which he endeavoured to deliver, but could not; and the servants seeing him make repeated attempts to speak, became alarmed, and called their master, who on observing the man in such a peculiar state, sent for me. His fellow servants were not aware of his having taken any thing beside his ordinary food during the day. His pulse was 80, hard, and full. The respiratory muscles were in violent action, the nostrils dilated to their utmost; and on his attempting to speak the muscles of the face, throat, and chest were affected by spasms. He appeared to be quite sensible, and to hear, and see distinctly. I requested him to compose himself, and make no more attempts to speak; but to keep up his spirits as all would go well with him. To be convinced that I was understood I told him to make a sign to me if he knew what I said to him, and I was much gratified to see him make the required sign. Wishing to see if he could swallow; a small quantity of water in a wine-glass was put to his mouth, but on his making an attempt to drink, the spasms returned, and he could not pass a drop down his throat. I bled him from the arm to ℥xxxij. and by the assistance of the stomach pump I injected the following draught into his stomach.

R. Assafœtidæ gr. v.—Tinct. Opii. ♏xxv.—Sp. Æther. Sulph. ♏xxxv.—Aquæ. Puræ. ℥iss. M.

The immediate relief he obtained from the above treatment was very considerable. I enjoined the strictest quiet, and prohibited his making any attempts whatever to speak or swallow. A very copious diaphoresis almost immediately suffused the whole body, and the action of the respiratory muscles began to decrease in violence.

4 o'clock, P. M.—He is free from spasm. The respiratory muscles have recovered their natural action, and he breathes easily. Being permitted to speak, he did so without difficulty. He states that "previous to being bled he felt as if he was suffocating, and every attempt he made to speak or swallow, augmented the oppression to a painful degree, and caused acute pain in the

muscles which were affected by the spasms: that as the blood flowed he seemed to feel a gradual relief, and shortly after taking the draught he was free from pain." He now complains of great exhaustion; but no pain. He does not remember ever having been attacked in a similar manner, nor can he assign any cause for his present illness.

R. Calomel, gr. iij.—Pil. Colocynth. Comp. gr. x. M. ft. Pil. ij.—Statim. Sumend.

27th.—The pills have operated, and the man is free from complaint. He returns to his duty to-morrow.

T. W. BURT.

Furreedpore.

HOSPITAL REPORTS.

SUMMARY BY MR. RALEIGH, FOR THE MONTH OF SEPTEMBER, 1834.

The past September, is generally considered, as having been one, of the most pleasant, and salubrious, which has been experienced for many years, in Bengal. The temperature moderate, and equable, the thermometer seldom varying more than, from four, to six degrees, in the twenty-four hours, through the whole month, and usually ranging, from, 80 to 84 degrees Farh. The prevailing diseases have been of a mild description, seldom proving fatal, and thus forming a happy contrast, to the same season of the preceding year.

A few cases of CHOLERA, occurred, at the early part of the month; and at this time also, a spurious description of this complaint, was sometimes met with; but by timely assistance, and appropriate treatment, was in most instances speedily controuled. Occasional cases of true "BILIOUS REMITTENT" fever, have prevailed, but for the most part, the febrile diseases, have been, of a simple inflammatory character, or intermittent; and have been subdued in a fair period. The most important affections, have been, DYSENTERY, and DIARRHŒA, some cases of which have been very severe, and required prompt treatment.

But complaints of a more trifling, although troublesome description, such as—CATARRHAL FEVER, RHEUMATISM, HERNIA HUMORALIS, PAINFUL AFFECTION, OF THE NERVES OF THE FACE, AND SCALP; EAR ACHE, and such like disorders, have occupied a large proportion of the beds, in the wards of the General Hospital, under my charge; and occasioned the number of patients in hospital, to be rather large. At the time of writing this report however, many are convalescent, and almost all, doing well.

Case of "Aura Epileptica"—or "Epilepsia Sympathetica.

J. H., æt. 29 years, a native of Calcutta, of delicate frame, and rather below the middle stature; gave the following account of himself. He was born in Calcutta in 1800;—proceeded hence to Scotland for education in 1808—enjoyed health through childhood, and youth, up to 1818—at which period, in the exercise of his profession as a ship builder, he sliced off the ball of the thumb of the left hand, with an axe; the wound was a clean incised one, and healed in a moderate time, in 1819—whilst in the act of grasping some copper money—he was seized with spasm of the muscles of the fingers and hand, which resisted all effort to open it, after a few moments, he experienced a sensation at the end of the fore-fingers, which he compares to the "melting of sealing wax," this peculiar feeling of *melting* passed up the fore, then attacked the second, third, and little fingers, and leaving the thumb, continued its course up the hand, and arm; the flexor muscles of the limb, contracting spasmodically, so that the fingers were bent on the hand, and the fore, on the upper arm; the period which this sensation of melting occupied, was but of few moments duration, the greater part of which time was expended, in its passing through the fingers and hand, its course up the arm was rapid, and communicated a sensation of the arm "melting in a strong fire"—from the arm, the sensation passed over the left half of the face, which appeared gradually to melt away, the head and neck being at this time twisted by spasm of the muscles, towards the left shoulder, and he became insensible, in which state he remained more than an hour, and from which he was recovered by the repeated dashing of cold water over him from a bucket—he continued in a nervous irritable state for a day or two, after which he experienced no inconvenience, until a return of an exactly similar fit, a fortnight after the first. During the ensuing six months, he had an attack regularly twice a month. About this period he asserts, that, he remarked, that bringing his left hand fingers, to touch the side of his nose, or cheek, *just below the eye*, immediately gave rise to a fit, and on his covering this hand with two gloves, and avoiding to perform this action, the attacks became much less frequent; so convinced is he of this circumstance, that he cannot be prevailed on to touch his *face*, with his left hand, even whilst covered by gloves, although he

will carry the arm in any direction over, and even place the hand on the top of his head. After the second attack, he says, he consulted Dr. Abercombie, of Edinburgh, but derived no benefit from his prescriptions, some Surgeon in company with Dr. A., made a crucial incision in the ball of the thumb, and kept the wound open for some months, he did not *lose sensation*, or power of moving the thumb, after the operation, (from which circumstance, I conclude the nerve could not have been divided)—the attacks became less frequent, which he attributes entirely, to his having from experience found, that placing the hand on the cheek, opposite the place of exit, of the infra orbitary nerve, occasioned them, and his avoiding to do so, but he felt their effect, for a longer time after each successive fit. During the years 1820 and 21 he had been subject to a fit about every two months,—in 1822 he returned to India, and during that, and the three succeeding years, he had but one annual visitation of his complaint—in 1825 he again proceeded to England, and in the two following years, had on three occasions very severe returns of his fits—some Surgeon in London, recommended his submitting to amputation of the thumb—but Mr. Abernethy whose advice he followed, prescribed—"strict attention to the state of his bowels, and bathing the hand and arm, night and morning in warm water."

July 10th, 1829.—Four days since, he was warned of the approach of an attack, by some unpleasant sensations in the hand—and pain at the top of the head—shortly after which twitching of the muscles of the fingers, and a sensation of cleaving of the tongue to the roof of the mouth, were experienced—he directed buckets of cold water to be thrown over him and took some spirits—on which the symptoms went off—and he then took a smart purge, which he repeated on the following morning. Yesterday morning, at 9 A. M., the fit came on, and observed the course described at the commencement of this report: on admission into the General Hospital, on this day (10th)—his appearance is that of a very nervous, irritable person—the eyes red—and palpebræ swelled; on his left hand he wears a woollen, covered by a thick leather glove; on my attempting to remove which, the muscles of his hand were thrown into a state of spasm—and the whole limb trembled; he cautiously drew back the partially removed outer glove, saying "it is too soon after the fit to move the fingers, as another fit will be induced by so doing." He complains of a dull pain at the occiput, and down the cervical spine, with a sense of burning over a small spot at the top of the head, tongue dry—pulse small, and frequent;—bowels moderately open.

xxx Leeches to the occiput.—R. Hydrarg. Submur. gr. vj.—P. Jalapæ Comp. 3j. Hor. Som. Sumend.

The head shaved and cold lotion constantly applied.

11th.—He took off the gloves with very great caution, the cicatrix of the crucial incision on the ball of the thumb, is very evident, the head and neck are relieved of pain—bowels freely acted on, and he is much more tranquil than he was yesterday.

From this time, the bowels were regulated by mild medicine—the arm bathed night and morning in warm water, and a moderate diet allowed him, in the course of a fortnight, he had quite recovered from the effect of his last attack, and was discharged from the Hospital apparently well.

During the present month (Oct. 1834) he came to consult me, regarding an incipient amaurotic state of his eyes, and informed me that he had continued free from a recurrence of his fits, from the time of his leaving the Hospital, until a month since, when he had an attack, similar to the former ones.—He still wears the two gloves on the left hand, and maintains his conviction, that the contact of this hand, and the cheek, would be the immediate cause of a fit.

Extraordinary case, of Generation of Air, in the inferior Venous System.—(Phlebitis).

G. G., a stout youth, lately arrived from England, of about 19 years of age, was sent to Hospital on the evening of the 8th of August last, in consequence of having suffered for several days, from inflammation, on the inside of the left leg; the affected part, presented a patch of about the size of a man's hand, and extended from the middle of the calf, nearly down to the ankle, the integument, at the central point of this spot, was of a dark purple hue, from which, it assumed a red colour, gradually fading towards the circumference, which was clearly defined; the pain, which had been constant, and acute, was confined to the discoloured portion, which was exceedingly tender, and hot—the whole limb below the knee, was rather warmer than natural, but was not much swollen, pain did *not* extend up the thigh, but the glands at the groin, were somewhat enlarged, and tender,—the tongue was coated, but he was free from any general febrile symptoms.

xx Leeches near the edge of the inflamed patch.

Cold lotion to the leg—R. Calomel, gr. vi.—Pulv. Jalapæ Comp. 3i.—Stat. Sumend.

9th A. M.—The redness, and pain of the leg, much abated, bowels acted on three times in the night.

xij Leeches, and Lotion—P. Jalapæ C. 3j. Stat.

10th.—Improving.

xiij Leeches and Purgative.

11th.—The inflamed patch on the leg, has nearly entirely disappeared, the limb cool, free from pain, and the glands at the groin, although enlarged, are not tender on pressure.

vi Leeches to the leg—Lotion, and Pulv. Purg.

12th.—During the night the limb again became highly inflamed, and the patch on the inside of the leg, assumed a very angry appearance, and was exquisitely painful, and tender; above the knee, the limb is quite cool, and no uneasiness is experienced along the inside of the thigh, or at the groin. His skin is hot, and pulse frequent, and rather full.

Bleeding to faintness—R. Calomel, gr. vi.—P. Jalapæ Comp. 3j. directly.

Noon.—Pain continuing.

viij Leeches were applied to the leg—and a dose of Calomel administered.

4 o'clock, P. M.—During the afternoon, he has been exceedingly restless, and has now an anxious countenance, a small, rapid pulse—the respiration hurried, and abdomen distended, the spot on the leg is much less hot, or painful, the cuticle has separated from it, and small vesicles have formed round its margin, the whole limb, appears rather larger than natural, but is not tense, and is of healthy colour, and temperature; he complains of feeling very faint, and his skin is suffused with perspiration.

The whole limb enveloped in a poultice.

R. Calomel, gr. x.—P. Antim. gr. iv.—Ex. Colocynth C. gr. viij.—Stat. Sum.

As evening approached, the abdomen became more distended, the breathing more oppressed, the countenance livid, pulse rapid, and thready; on the poultice being removed, the whole of the affected lower extremity, was observed to have increased in size, and become more hard, as was the case also, with the opposite limb—but their colour and temperature, continued natural; dyspnœa increased, and he died in the evening, as in a state of suffocation.

Post-Mortem Examination, eight hours after death.—The countenance had a livid hue, and the mouth and nostrils, were filled with foam. The abdomen was much distended, and the lower extremities more bulky than natural, of pale colour, and had a firm elastic feel, but communicated no sense of crepitation to the finger on pressure being made—the purple patch on the inside of the leg, remained, and the cuticle was detached from its surface, the superficial skin, peeled from the whole limb with unnatural facility. On cutting into the dark spot, the cellular structure beneath the integument, partook of the discolouration, and was at *at this particular situation*, emphysematous; on continuing an incision along the inside of the thigh, in the course of the saphena major vein, an eruption of air took place, from the innumerable ramifications of the veins, divided by the knife, and red froth, was observed to issue, from their minute orifices, giving rise as the knife was carried on, to a peculiar crackling noise. At the ham, the absorbent glands did not appear to have undergone any change, but at the groin, on the integuments, which were much distended, being divided, the upper, and lower chains of inguinal glands, burst forth, and when exposed by dissection, presented a cluster of swellings, as large as pigeon's eggs, of a reddish, or chesnut colour, and spongy consistence; when divided by the knife, the same crackling or popping noise was elicited, as when the knife was carried through any part of the integuments, of the two lower extremities, but in greater degree, and sounded more like the crackling of paper, when squeezed in the hand.

On the abdomen, and chest, being laid open, a most extraordinary condition of some of the viscera, was exhibited. The liver, and spleen, were so enormously enlarged, as to occupy nearly the whole front and sides, of the abdominal cavity, the intestines, which were nearly hidden, were in a perfectly healthy; and collapsed state, but on turning them aside, the kidneys were found to be at least twice their natural size. The chain of glands, passing from the groin and pelvis, in the course of the great vessels, up the lumbar spine, formed a line of tumours, varying in size, from a hazel nut to a large hen egg—and of the same red colour, as those at the groin.

The Pericardium seemed to fill the anterior part of the chest, the upper edges of the lobes of the lungs only, being made visible by the removal of the sternum.

I now proceeded to an external examination of the blood vessels, to which I have as yet, avoided adverting. From the purple patch, on the inside of the left leg, I dissected the superficial veins; and found that, they were all fully distended with air, having a semitransparent appearance, and exhibiting within their calibre, unconnected portions of blood. The deep seated veins, were in precisely the same distended state, and offered a great contrast in apparent size, to the arteries,

over which they rose, so as completely to obscure them—following the course of the vessels from the foot, through the leg and thigh, and entering the pelvis, the iliacs, ascending vena cava, emulgent, hœpatic, splenic, together with all the minor branches, joining to form the ascending venous circulation, were distended to the utmost possible extent with air. On the brachial vein being laid bare, it appeared in the condition in which it is usually seen after death, as were also the external, and internal jugulars, and subclavian, collapsed, and containing *no air*.

The pericardium was now carefully opened, when the heart, with right ventricle, and auricle presenting, and distended to an enormous size, was found to fill the bag, there being only about ℥ss. of reddish fluid in it; the left auricle was collapsed. Unfortunately, before noticing the state of the pulmonary artery, I cut into the right auricle, on which a sudden gush of air took place, and the heart closed to its natural size; exposing the lungs, which now, had a natural appearance, and admitted a view of the descending vena cava, which was in a perfectly flattened state. On removing the immensely inflated liver, and placing it on a table, air mixed with blood, issued in the shape of froth, in great quantity; and on incisions being made into the structure of this viscus, it escaped with a hissing noise. The same was the case with the spleen, and kidneys, in a diminished degree, but a division of the lumbar chain of glands, gave vent to a proportionately large quantity of air, and frothy matter.

The bulky viscera removed; attention was directed to an inspection of the internal condition of the blood vessels. The lining membrane of the ascending venous system, throughout such branches, as from their size easily admitted of examination, was of an unusually red colour, the inner surface of the right auricle, appearing to participate in a slight degree, in this more deep than natural tinge; the lining of the posterior tibial vein, of the left leg, appeared to be of darker red colour, in the vicinity of the inflamed patch, than elsewhere; but this was *not* very decidedly marked, and the inner surface of the larger branches, and trunk of the saphena vein, was of much the same colour, as in others of the inferior venous circulation; in one or two situations, in the ascending vena cava, a very few minute vessels, were seen here and there, making a tortuous course, for about a quarter of an inch, along its inner coat, but the *general appearance*, was, as if a solution of vermillion, had been washed over the inner surface of these vessels; the colour heightened immediately on exposure to the atmosphere. The blood contained in the veins, was of a dark colour, its consistence completely broken up, unconnected, and mixed with bubbles of air.

The descending venous system, (including the veins of the head, and those of the membranes of the brain,) was in a perfectly natural state, but containing rather a large quantity of blood: no unnatural accumulation of fluid, had taken place in the head, and the substance of the brain, seemed healthy.

The whole arterial system, was free from any detectable morbid indications.

Dysentery.—The cases of *acute* Dysentery, have been treated by general bleeding—the application of leeches to the anus, and over the most tender part of the colon, on the abdomen; and the internal administration of Calomel and Tartar Emetic, or Ipecacuanha, with, or without, a small quantity of opium. According to the existing state of the general system, and degree of intestinal irritation. Tenesmus usually relieved, either by leeching—or an enema of superacetate of lead and opium, thrown into the rectum: in protracted cases, a common blister—or tartar emetic ointment, over the belly has been applied. The gums have usually become slightly affected, before the disease was conquered. An occasional mild aperient was requisite, a flannel patee and flannel dress always worn; and a very light bland diet, *only*, allowed as long as *any* symptoms of the disease continued.

In the sub-acute forms of the complaint—Blue Pill and Ipecacuanha—occasionally mixed with Ext. of Gentian, or Cinchona, has taken the place of Calomel, &c.

Many of the cases of Diarrhœa have required a somewhat similar prescription, whilst in others astringents have been more applicable;—Pulv. Ipecac. Comp. mixed with Pulv. G. kino—or the "*Samul*," or extract from the cotton plant, (I believe) —or the Sulphate of Copper and Opium, &c. I have found most effectual.

Hernia Humorhalis.—Most of the cases of swelled testicle, have been caused by "taking cold"—and have in some instances been accompanied by considerable constitutional excitement, requiring general, followed by local bleeding, &c.; in others, the application of leeches, one brisk mercurial purge, and the administration of a solution of sulphate of magnesia, and tartar emetic, so as to induce nausea, and keep up an action in the bowels, has been found effectual.

Rheumatism.—In a few cases of obstinate Rheumatism, I have given with benefit,—Strychnine,—in doses of from $\frac{1}{4}$ increased to $\frac{1}{2}$ a grain in combination, with a similar quantity of opium.

Ear-Ache.—Pain of the nerves of the face, and side of the head—and ear-ache; have in most cases been attended by deranged state of the stomach, and slight febrile symptoms—leeching, purgatives, and blistering, have been the remedies usually indicated—in one case of intermittent affection of this description, Quinine was successful, after a fair trial of Liq. Arsenicalis had been of no advantage.

Delirium Tremens.—As usual, several cases, coming under this denomination, have been received into hospital during the month: where no *delirium* has existed, and merely a state of nervous excitement, tremors of the muscles, irritable stomach, &c. very little has been prescribed beyond keeping quiet—saline draughts—and purgative injections, or medicine. In cases where delirium prevailed, opium has been administered at short intervals, until sleep has been induced, after which the patients have usually become composed, and tractable, and required nothing more than, an occasional aperient—and mild diet to complete their cure.

W. Raleigh, *General Hospital.*

SELECTIONS.

A Case of Trial for Poisoning by Arsenic. By Thomas Edward Beatty, M.D. M.R.I.A., Professor of Medical Jurisprudence to the Royal College of Surgeons in Ireland, Accoucheur to the New Lying-in Hospital, and Consulting Accoucheur to the Baggot-street Hospital, Dublin.

There is no part of medical practice, wide as that field is, which more imperiously demands not only a thorough acquaintance with all the particulars relating to it, but also a readiness in making that knowledge available when opportunity requires, than those cases in which we are called on to give an opinion respecting the administration of poison. The difficulty varies in degree according to the circumstances of the case. If we see the patient during life, and have an opportunity of witnessing the symptoms under which he labours; if some remains of the poisonous dose be forthcoming, or if the contents of the stomach, as ejected by vomiting, be preserved; and if after death we have an opportunity of examining the body, much of the obscurity is obviated, and the case is one of comparative simplicity. The difficulty is increased, when the sufferer is dead before we see him, when we can only learn the history of his previous state from ignorant by-standers; and when none of the evacuations from the stomach or intestines are available for the purpose of analysis. But the case becomes involved in still greater obscurity when a body is found dead, without any information as to the previous sufferings of the individual; for we are then cut off from all knowledge of the symptoms, and the means of comparing them with the appearances found on dissection; a most important help towards arriving at a just conclusion. It is cases of this latter kind, which place a medical man in the most trying situation, and demand all the knowledge of toxicology which he can bring to the task. It behoves him to be well acquainted with the morbid effects of the different poisons, and the *variations* to which these effects are liable, according to the dose, and the rapidity with which it is followed by death. Thus, for instance, it is generally known, that one of the usual effects of the irritant poisons is inflammation of the gastro-intestinal mucous membrane, terminating in a remarkable thickening and corrugation of this tunic, the prominent parts of the elevations being of a deep black colour; yet, a person who would expect to find such appearances in every case of poisoning with arsenic, would be very likely to overlook some of the most important cases of death from that mineral; there being cases, and these of the most deadly kind, in which little or no traces of inflammation are to be found in the stomach or intestines.

These observations have suggested themselves in reference to an important medico-legal case, lately tried in this city, in which a woman and her paramour were convicted, and executed for the murder of the husband of the former. The case is important, inasmuch as conviction was had upon circumstantial evidence, but that of a nature so clear, that there was no resisting its force.

The unfortunate victim was an elderly delicate man, with a humped back, named Thomas Canning, who kept a huxter's shop in Upper Stephen's-street, to which he had not removed many weeks, and was supposed to have about seventy pounds in the savings' bank. He had the ground floor of the house, consisting of a small shop in front, and a small room at the back of it, communicating with the shop by a door, in which room he and his wife lived and slept. Besides these apartments, they had another on the first floor, in which they had beds to let to lodgers. The only lodger they had since they took the concern, was the prisoner

Martin, who was a married man, but had long deserted his wife and children. He had lived with them in their former lodgings in South King-street for four months.

Having, through the kindness of one of the counsel for the crown, obtained a copy of the depositions sworn to before the trial, and also his notes of the cross examination of the witnesses at the trial, I have been enabled, with the help of the reports given in the public prints, to collect the principal facts, upon which this extraordinary case rested, and to arrange them in a connected form.

To take the evidence in chronological order, we have first the testimony of John Reilly, a police constable, which shews that there had been an illicit intercourse between the prisoners, Maria Canning and Patrick Martin, for a length of time, and that so far back as the year 1832, they were in the habit of beating, and otherwise ill-treating the deceased, Thomas Canning. Reilly swore, that in December, 1832, Canning came to the police office to which he is attached, to complain of abuse and beating by Martin, and his wife, who had been out all night together. On going to his lodgings, he found there Martin and Mrs. Canning. Being asked why they abused Canning, Martin denied having done so, but Mrs. Canning exclaimed, "a bloody end to the cripple, I will be his end." Canning had taken up a poker, to shew witness how his wife had struck him, when she ran forward, snatched it out of his hand, and made a blow at him, which Reilly prevented, by seizing the poker, and twisting it out of her hand. She then ran at her husband, and gave him several blows with her fist, swearing "she would have his life," that "he was no man." They were then both held to bail for their good behaviour. Such scenes were frequently repeated, and the deceased called on Reilly several times afterwards, to complain of assaults made on him by the prisoners. The last occasion was so recent as the 7th of January, about a week before his death, when he lodged informations against Martin; at which time he bore several marks of violence on his head.

Michael Geoghegan, a lodger in the same house with the Cannings, stated, that on the 2d of January last, Mrs. Canning, who had absented herself for three days, returned home. On this occasion her husband was very angry, and asked her, "how dare she come back after being out with any fellow," to which she only replied in a sneering manner, and asked him for a glass of spirits. In about an hour afterwards, Geoghegan heard Martin conversing with Mr. and Mrs. Canning, and they all three drank together. In some time after, he heard loud snoring in the room, and on looking through a small window in the door, he saw Canning on the floor asleep, and Mrs. Canning and Martin standing in the shop, at a press where Canning kept his bank book, and heard them disputing about eleven pounds, which she accused him of stealing. He denied it with dreadful curses, and called her a whore, several times. She replied, "you are a gentleman, but if I am a whore to you itself, you are not to rob us of our hard earnings." The next morning, the 3d of January, they both disappeared; Mrs. Canning did not return until the night of Sunday, the 5th January, and Geoghegan heard Martin's voice in the house the next morning. Martin was in and out of the house, as a lodger, from that time until Canning's death, during which period he assumed great authority in the house, and frequently used gross and opprobrious language to Mrs. Canning; who also used gross epithets to her husband. Early on the morning of Wednesday, the 15th of January, the day on which the fatal deed was committed, Geoghegan heard Canning call his wife down stairs, from Martin's room, where she was in bed, and heard her say to him, "go along, God damn you, or I will knock you down stairs;" upon which the deceased retired quietly. This witness saw Canning in his own room, with his wife, about seven o'clock in the evening, in his usual health, on his feet, and sober. From that time until past 12 o'clock at night, when Canning was found dead, there is no account of what passed in his room.

Mary Geoghegan, wife of the last witness, deposed, that about 12 o'clock, on the night in question, Mrs. Canning came up to her room, where she was in bed, and gave her a glass of spirits. Witness shortly afterwards followed her down stairs, to light a candle, as an excuse to get another glass. When she got into the deceased's room, the only persons she saw were the prisoners. They sent her out for more spirits, of which she procured half a pint, and they all sat down to drink it. After they had drank part of it, Mrs. Canning said, she would give some of it to her poor Thomas, meaning her husband, who was lying in the bed, with the curtains close drawn. Martin said, "hell to him if you do, he will be jawing till morning." She said she did not care, she would give him a sup, and rose up from the table with a heavy sigh, and went over to the bed, but brought no drink with her. She put her hand into the bed, and immediately cried out, "he is as cold as clay." Witness then took a candle over to the bed, and on drawing the curtain, found the deceased lying on his back, with all his clothes on,

his cravat tied loosely round his neck, and his mouth wide open. She at once said he was dead, on which Mrs. Canning observed, that he was in the habit of sleeping very soundly; when witness replied, he was then in the sleep of death. She immediately ran up stairs, and awoke her husband, who came down, and found the deceased as above described. He proposed to go for Mr. Singleton, a neighbouring apothecary, to which the prisoners objected, saying, that as he was dead, there was no use in making a fuss about it. Nevertheless Mrs. Geoghegan went of her own accord, and brought Mr. Singleton in with her.

Mr. Singleton testified, that he was called out by the last witness, at about half-past one o'clock on the morning of the 16th of January, and brought into Canning's room. He there found the deceased as already mentioned, and thought he must have been dead some time. On inquiring as to the cause of his death, he was told by Martin, that the deceased had been drinking during the day, that he had lain down on the bed for some time, being tipsy, and that when they went to awake him, they found him dead. Witness observed, that if that was the case, an examination of the body would disclose the cause, and proposed to have it opened, to which Martin at once said in a very strong manner, "Oh, Sir, he shall not be opened, we will not allow it;" and in such language persevered in his objections, which created suspicion in the witness's mind. He asked if the deceased had made any noise before he died to alarm them, and was told not. He was not then informed of his having vomited. Witness then went home, and after he had gone Mary Geoghegan stripped the body and washed it, in the presence of the prisoners, and in doing so did not perceive any thing remarkable on it. Martin then went out for more spirits, and he and Mrs. Canning continued drinking till morning; they drank about a quart altogether. Mr. Singleton returned at ten o'clock in the morning, and then asked Mrs. Canning, "what noise was that which your husband made in his throat when dying;" to which she replied, "no noise, Sir, he only complained of a pain in his belly." Mr. Singleton then removed the bed clothes, and observed, as he thought, an appearance of eccymosis on the skin under the clavicles.

Mr. Thomas Weston, shoemaker, the landlord of the house, but not residing in it, on being informed of Canning's death, inquired into the particulars respecting it, and having been aware of the misconduct of the prisoners, and of their ill-treatment of the deceased, he at once declared his suspicion of foul play, and with a most praiseworthy promptitude, insisted that an inquest should be held on the body. The inquest was held accordingly in the course of the day, before Alderman Perrin, one of the city coroners. During the investigation, Mr. Singleton asked Martin, if the deceased had vomited prior to his death, who then said he had; and when Mr. Singleton remarked that he had not seen any appearance of it about the bed, he brought him into the room, and pointed out a wet spot on the floor, to which Mr. Singleton and Dr. Coote stooped down and smelled, and thought they perceived a strong smell of opium.

Dr. Coote opened the body, and stated that he found no marks of external violence upon it. On opening the stomach, the villous coat appeared in a state of active inflammation, it had a corrugated or wrinkled appearance, and he thought it had lately contained opium, from its strong smell of that drug. He removed the stomach, with its contents, from the body, put all up carefully in a bladder, and brought it to me the following day.

The evidence which I gave on the trial was to the following effect. On Friday, the 17th of January, 1834, Dr. Coote, accompanied by Mr. Welsh, a medical student, came to my house and informed me, that he wished to ask my opinion and advice respecting the stomach of a man, who had died under suspicious circumstances, on the 15th, and whose body he had examined before the coroner's jury on the 16th. He produced a bladder carefully tied up, which he opened in my presence, and discharged the contents of it, consisting of a human stomach and heart, into a clean basin. The stomach had been opened by an incision five inches long, on its anterior surface, near to the great extremity. Some of the contents escaped into the basin, but the greater part remained. On examining the stomach, it was found to contain about half a pint of thick reddish coloured fluid, smelling strongly of anniseed, and several pieces of unchewed half boiled potato. The parietes of the organ were entire, excepting the incision already mentioned. The mucous lining presented a general red blush, and a minute injection of the small vessels with red blood in several places, particularly in the great end. It was somewhat thickened, and some corrugations were evident at the posterior surface. In some places large patches, some of them of the size of a half crown, of white matter were found adhering to the mucous surface. These could be scraped off without difficulty, and presented the appearance of a fine white powder, mixed up with mucus into a paste, but the membrane underneath them did not appear more

vascular, or more altered in texture than in other situations.* On looking at the fluid contents of the stomach, a similar white powder was perceived floating through it. The heart was quite healthy.

Having made this cursory examination, I replaced the stomach, with all its contents, in the bladder, and accompanied by Dr. Coote and Mr. Welsh, proceeded to my laboratory in the College of Surgeons. I there, as before, poured the contents of the bladder into a clean basin, and emptied the stomach entirely, inverting it, to get a clearer view of its inner coat. I scraped off a small portion of one of the white patches which still adhered, with a watch glass, and divided the little mass into two parts, one of which I transferred to another watch glass. Into one of these I poured distilled water until it was nearly full, and on stirring it with a glass rod, the white substance separated into a powder, which sank to the bottom, and a viscid substance in which it had been entangled. I now applied the heat of a spirit lamp, and cautiously boiled the fluid, by which the powder was dissolved. The clear fluid was now poured off, and divided into four watch glasses, which I arranged on a white porcelain slab. Into one of these I dropped cautiously from a tube, the ammoniacal nitrate of silver, when a copious yellow precipitate took place. Into the second I dropped the ammoniacal sulphate of copper, which gave an equally abundant precipitate of a grass green colour. To the third I added a little of the hydro-sulphate of ammonia, when the fluid assumed a deep straw yellow colour, which, on the addition of a drop of acetic acid, and being gently heated over the spirit lamp, gave a copious lemon yellow precipitate. To the fourth a large quantity of lime-water was added, from which there fell down a white cloudy precipitate.

Having thus satisfied myself of the presence of arsenious acid in solution, I proceeded to treat the remaining portion of the white paste, which I had set aside in its watch glass, by the reduction process. Previous to doing so, I poured the fluid contents of the stomach out of the vessel in which it had been standing, into another, and in the bottom of the former, I perceived some portions of white powder, of which I collected a few particles on the point of a spatula, and transferred them to the glass containing the white paste. Having mixed them, I thought the substance too moist to introduce into the reduction tube, so I held the glass for a short time over the spirit lamp, taking care not to apply a heat sufficient to sublime arsenic. The mass being thus gently dried, was mixed with an equal portion of black flux, which formed a ball about the size of a garden pea. I dropped this to the bottom of a thin glass tube, six inches long, one-fourth of an inch in diameter, and closed at the bottom. A paper gutter was now passed down the tube, and through it a portion of black flux was poured, so as to cover the little ball at the bottom; which done, the gutter was withdrawn. The part of the tube containing the mass was now held at a distance over the flame of the spirit lamp, so as to expel the moisture remaining in the mixture, by a gentle heat. This rose in vapour, and collected on the inside of the tube, from whence it was removed by a roll of blotting paper passed down the tube, and kept revolving between the finger and thumb, as long as the fluid continued to rise. As soon as this ceased, the roll of paper was withdrawn. The tube was now brought nearer to the flame, which was at first directed to the upper part of the contents, and by degrees the part containing the bulk of the mass was brought into the centre of the flame, where it was held steady. In a short time a metallic ring commenced to form on the inside of the tube, about a quarter of an inch above the upper part of the black mass; this gradually increased in breadth, and at last became a quarter of an inch broad: a dark coloured ring was formed higher up in the tube, evidently composed of carbon. The outer surface of the metallic ring, in contact with the glass, was uniformly smooth, bright, and of the colour of polished steel; the inner surface appeared crystalline. This experiment satisfied me that I had obtained metallic arsenic from the substance treated.

The stomach was now well washed with distilled water, all the adhering matter was removed, the viscid contents were diluted with distilled water, and the whole was introduced into two flasks, the fluid part into one, and the solid matter, with some of the fluid, into the other, and set aside for further analysis.

On the 20th, I resumed the investigation. Being anxious to ascertain the quantity of arsenic contained in the stomach, I proceeded in the following manner. To the flask containing the solid matter, six ounces of distilled water were added, and after acidulating it with acetic acid, it was boiled for a few minutes; it was then poured off, leaving the solid matter behind, and filtered while hot; a tolerably light clear coloured fluid passed through, which was collected in a deep, narrow jar, and through it a stream of sulphuretted hydrogen gas was passed for half an hour; this caused a

* The stomach is preserved in the Museum of the College of Surgeons.

very copious precipitate of a golden yellow colour (orpiment): the fluid was now boiled again; which caused the precipitate to become more distinct, and this was now separated by filtration and preserved. Fresh distilled water was now poured on the solid contents remaining in the flask, and subjected to the same treatment, by which an abundance of orpiment was obtained. This process was repeated four times with the same result, and the whole quantity of orpiment obtained weighed, when dry, thirty-one grains, which is equivalent to twenty-five grains of arsenious acid.*

It having been supposed that laudanum had been administered to the deceased, I was desirous of ascertaining whether any of it could be discovered in the fluid contents of the stomach, which I had set aside in the other flask. For this purpose, having consulted with my colleague, Dr. Apjohn, we agreed that the arsenic contained in solution should be removed previous to any other steps being taken. Accordingly the fluid was removed to a deep narrow jar, and acidulated with acetic acid; a stream of sulphuretted hydrogen gas was now passed through it for an hour, giving rise to an abundant yellow precipitate, which was removed by filtration. The matter caught on the filter was bulky, and of a less bright colour than that obtained in the former process, owing to the presence of animal matter, which had not been separated by previous filtration; owing to this adulteration of the orpiment I did not preserve it, but the quantity was as great as that already obtained. The fluid which passed through the filter was of a light brown colour, clear, and amounting to eight ounces; this was slowly evaporated by gentle heat on a sand bath, until the residue became a brown viscid extract, having the appearance and smell of oymazome. Upon this one ounce of alcohol was digested, with heat, for five minutes, during which time it was kept stirred with a glass rod; the alcohol was then poured off into another dish, and evaporated, leaving a small portion of brownish viscid matter behind, to which was added one ounce of boiling distilled water, in which the extract readily dissolved.

This watery solution was now treated with a view to detect the components of opium, in the following manner:—A small portion of it was transferred to a watch glass, and some recently prepared mucilage of starch was well mixed with it, a drop of iodic acid was let fall into it, when the whole assumed a deep prussian blue colour. The remainder of the fluid was then treated with a solution of acetate of lead, which caused a creamy, brownish white precipitate. After filtering the fluid, this precipitate was removed to a watch glass, a little distilled water was poured over it, and a drop of sulphuric acid was added, which changed the colour of the precipitate to a perfect white. This was allowed to subside, and the supernatant fluid was poured off, to which a drop of permuriate of iron was added, without any change of colour being effected. The original fluid from which the brownish white precipitate just mentioned had been separated, was now subjected to a stream of sulphuretted hydrogen gas, with a view to remove any lead which remained after the first part of the process. The sulphuret of lead thus formed was separated by filtration, and to the fluid which passed through the filter, ammonia was added, without causing any precipitate. However on being allowed to stand in a small test tube for twenty-four hours, a minute quantity of a greyish white deposit was formed, to which, after the fluid was removed, a drop of permuriate of iron was added, without causing any change.

From these experiments I testified at the trial, that arsenic was contained in the stomach in quantity sufficient to have destroyed life; but I was not able to certify respecting the administration of laudanum.

Mr. Thomas A. Evans, assistant to Mr. Simon Kelly, druggist, No. 64, South Great George's-street, identified the prisoner Martin as having come to the shop on the morning of Wednesday, the 15th of January, the day of the murder, to ask the price of forty drops of laudanum. On being told the price was one penny, he purchased four penny worth, (160 drops,) saying it was for a sick woman in the country. In about two or three hours, Martin returned to the shop, saying he had lost, or broken the bottle, and purchased a similar quantity. On the evening of the same day, he came back, and asked witness for some poison for rats, when he sold him an ounce of arsenic, having added a few drops of oil of anniseed to it, to induce the rats to take it. At a later hour on the same evening, the prisoner again called on witness and said, "that," alluding to the arsenic, "had killed five rats," and he requested to have a similar quantity, which witness gave him. Witness identified

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* The composition of the two substances is as follows:

	Arsenic.	Oxygen.	
Arsenious acid	1 atom 38	+ 1½ atoms 12	= 50
	Arsenic.	Sulphur.	
Orpiment	1 atom 38	+ 1½ atoms 24	= 62

Hence sixty-two parts of orpiment are equivalent to fifty parts of arsenious acid, and consequently thirty-one parts of the former are equivalent to twenty-five of the latter.

an empty ounce phial bearing the label of Mr. Kelly's shop, and marked "laudanum," as one of those in which he sold that drug to Martin.

It is to be remarked, that Weston, the landlord, and the two Geoghegans, all deposed that they never saw rats in the house; neither were there any rat holes to be seen on the premises.

Catherine Curran stated, that she lived next door to where the Cannings resided: between 10 and 11 o'clock, of the night of the murder, she heard a noise in the back yard like the falling of a bottle, and on going out, she found a bottle lying unbroken under the kitchen window, which was the same as that identified by the last witness.

Jane Mooney, niece to Mrs. Anne Byrne, a publican, living in South King-street, in whose house the Cannings and Martin had lodged for four months previous to their removal to Stephen's-street, stated, that Martin called at the shop on the morning after Canning's death, and told her "the little man was dead," meaning Canning: witness asked of what complaint he had died, when his answer was, that they had all been drinking together, that the deceased went to bed tipsy, and turned on his face and was smothered.

Here the case for the prosecution closed. The prisoners called no witnesses, and counsel made no defence. The jury retired, and in half an hour brought in a verdict of guilty against both prisoners.—*Dub. Jour. Med. and Chem. Science, May*, 1834.

JODYNE ANTIDOTE FOR STRYCHNINE, &c.

M. Donné states, that from closely observing a case wherein a woman's life was lately destroyed, experiments, the results of which are given by him in the October number of the *Annales d'Hygiene*, have led him to ascertain that tincture of iodine is the most effectual antidote for the vegetable alcalies, such as strychnine, brucine, &c. The iodine, bromine, and chlorine, form with these alcalies combinations, which in the dose of one or two grains exert no action whatever on the animal economy.—*Revue Med.*, Feb. 1834.—*Dub. Jour. Med. and Chem. Science, May*, 1834.

ON PERFORATION OF STRICTURES OF THE URETHRA—WITH CASES.

By R. A. Stafford,

Surgeon to the Mary-le-bone Infirmary, and formerly House Surgeon to St. Bartholomew's Hospital.

To the Editor of the Medical Gazette.

Sir,—In sending you for publication a series of cases of impermeable stricture of the urethra, treated by perforation, it gratifies me to be able to state, that my opinion of this treatment remains the same as when I first recommended it to the notice of the profession, in a work* published by me a few years since. I have not yet had a single case, under my own care, where it has failed of success; nor has any instance occurred in which mischief has arisen from it. In no case has a false passage been made, nor have extravasation of urine, hemorrhage, or any other bad symptom, ensued in consequence of its adoption. The advantage which the perforation of this description of stricture possesses over any other method usually employed, will be seen by the relation of the cases; and I am convinced, should any prejudices exist against it, they will, ere long, by all who wish well to science and their fellow-creatures, be entirely overcome.

I shall only further add, that my sole object in offering to you these cases for publication, is to enable the members of the profession to judge for themselves of the expediency, or otherwise, of adopting this mode of treatment: I must, however, admit, that a strong conviction, on my own part, of its superiority, in the worst cases of stricture, has made me the more anxious to direct attention to it.

I have the honor to be, Sir,

Your very obedient servant,

R. A. Stafford.

28, *Old Burlington Street, April* 2, 1834.

Case.—*Impermeable Stricture of from twenty to thirty years standing—Failure of Bougies and Caustic—Cured by the Lancetted Stilette.*

George Stevens, æt. 56, was admitted into the St. Mary-le-bone Infirmary, January 14, 1831, with an impermeable stricture, situated at the bulb. He had been afflicted with the disease, (which originated from gonorrhœa,) from between twenty to thirty years, and latterly has suffered so much from it, that he thinks the irritation of the urinary organs brought on a paralytic seizure of the left side, which he has now laboured under for more than a year. For some years past, he made water only drop by drop, and the bladder can never entirely empty itself. The urine is of an alkaline character, and mucus is deposited at the bottom of the vessel in which it is contained. Bougies, caustic, and other means,

* "A series of observations on Strictures of the Urethra; with an account of a new method of Treatment, successfully adopted in cases of the most obstinate and aggravated form of that Disease. Illustrated by cases."

from time to time, have been employed, but never with any relief. About a week after his admisson, I made an attempt to perforate the stricture, and got through half an inch of it. The part was kept open by passing a bougie every other day. He suffered no pain or constitutional symptoms that required more than fomenting the perineum, and taking an occasional aperient. In a week from the last operation, I again employed the lancetted stilette, and at once succeeded in perforating the obstructed part in the canal. A small gum elastic catheter was immediately passed into the bladder, and left there. In two days this was changed to one twice its size. The catheter now produced considerable irritation, so that it was left off altogether, Bougies and steel dilators were consequently passed every second or third day, until the strictured part was as large as the rest of the canal. On March 15, he left the hospital, and could make water in a full-sized stream.

Remarks.—It is not improbable that the irritation produced by the stricture brought on the paralytic affection. The sympathy between the urinary organs and the brain is very remarkable. Hence we frequently see diseases of the kidney, bladder, and urethra, terminate in urinary coma and serous apoplexy. This case could not have been treated successfully by any other plan. It had resisted the common modes—bougies and the application of caustic. Division from the perineum, independently of its uncertainty, would most probably, from the severity of the operation and the state of the patient, have caused death. The milder, and perhaps the most natural method, was the one pursued—perforation of the stricture within the canal of the urethra.

Case.—*Impermeable Stricture of thirty years standing, in a man of 72 years of age, cured by the Lancetted Stilette or Urethral Perforator.*

Mr. R., æt. 72, came from the country in May, 1831, to consult me concerning the state of his urethra, which had been the source of considerable annoyance to him for at least 30 years; and latterly the malady had so much increased, that he was in constant irritation and pain. He could only pass his urine guttatim, and was constantly obliged to rise during the night to attempt to make water, but he could never empty the bladder. He was in a miserable condition, being much worn and enfeebled; and, as he expressed himself, all he wished was to spend his latter days in a tolerable degree of comfort. On examining the urethra, I found a stricture immediately behind the bulb, which was impermeable to a bougie. The lancetted stilette, or urethral perforator, was passed to the part, and the stricture was at once perforated. A small catheter was introduced into the bladder, and its size was increased every two days. In a week from the operation they were left off. Steel dilators were now passed every second or third day, until a No. 12 could be introduced with ease. In a month or five weeks he went into the country again, perfectly well; the pain and irritation had ceased; he was enabled to sleep during the whole night without being under the necessity of rising, and he could make water in a full-sized stream. The auxiliary treatment was by aperients, frequently soothing the urethra by fomentations; and when inflammatory symptoms arose, applying leeches to the perineum.

Remarks.—This case shews, that even at a very advanced period of life this treatment may be employed without danger, considering the enfeebled state of the patient, and the duration of the disease, the immediate relief obtained is remarkable.

Case.—*Two Strictures perforated by the Lancetted Stilette; one three inches from the orifice, and the other at the entrance into the membranous portion of the Urethra.*

The history of the early part of this case may perhaps be best described in the patient's own words.

"Previously to the beginning of the year 1818, I had several claps and some trifling stricture, which I have strong reason to believe were eradicated, in the early part of this year, by the use of bougies, &c. I remained well till October 1823, when I again got a clap, which was renewed in the early part of 1824, and from which I think the commencement of the stricture may perhaps be dated, as I recollect having considerable difficulty in making water in August and September 1825, I applied to a medical gentleman at that time, from whose treatment I received considerable relief. But I believe this difficulty in voiding my water did not wholly arise from stricture, but in a considerable degree from the state of the bladder, probably occasioned by stricture, as there was a great deal of sediment or mucus in my water, and which entirely separated from it after standing some time. Although I did not make water in a sufficient stream, yet I did not perceive myself getting worse until the beginning of 1829, when, I think, I began to get gradually worse, and still kept neglecting myself, with the exception of several times (during that year and the beginning of 1830), taking something prescribed by

a medical gentleman to relieve the bladder, not being aware that stricture existed to the extent which turned out to be the case. For several months previously to putting myself under your care, in October 1831, I had considerable difficulty in holding my water; in fact, I could not at all times prevent its voluntarily dribbling away. I must also observe, that for several years (say four or five), I have had cause to make water oftener than a person free from disease, and voided it in a smaller stream, and in less quantities, than ought to be the case. This propensity has also increased within the last eighteen months or two years, until it has passed only by drops. —R. B."

When I first saw this gentleman, I found him to be in a highly nervous state. He was much in the situation he has described —passing his urine guttatim, having frequent rigors, a discharge, and being almost always in pain. A stricture, impassable by a bougie, was present, three inches from the orifice, and its indurated structure could be felt externally by taking the part between the finger and thumb. After having soothed the urethra by bleeding, fomenting, and administering anodynes and aperients, the straight urethral perforator was passed to the part; and by three incisions with the lancet, the stricture was divided. But little pain was felt, and only a few drops of blood followed. A small catheter was passed, with the view of leaving it in the bladder; its progress, however, was arrested at the entrance into the membranous portion. In consequence of this second stricture, steel dilators only were passed every other day through the first, until it was enlarged to the natural size of the urethra.

The patient having business in the country, left town for two months. He felt himself much relieved from the first operation; and on his return the other stricture was perforated. A catheter was left in the bladder for a week, and followed up by passing steel dilators. He went into the country, having lost all his distressing symptoms, and could void his urine in a full stream. He was desired to pass a catheter once every week for the present, and to do it as often as required afterwards.

Remarks.—The presence of two strictures in the urethra at so great a distance from one another, would have made the operation of their division from the perineum unadvisable; for as soon as one had been operated upon, another would have been found four inches from it; and thus it would have been necessary to have laid open at least four or five inches of the urethra. The time it would have taken to have repaired so much injury done to the canal would, of course, have been considerable, besides the uncertainty of its ultimate accomplishment. The perforation of the strictures was attended with little pain or loss of blood; but little confinement was required, and the cure was complete.

Case.—*Stricture that had resisted Bougies and all Urethral Instruments, perforated and cured.*

Geo. Pace, æt. 20, was sent to me by my friend Mr. Evans, surgeon, of Hampstead, Dec. 16, 1831. He had a stricture, brought on from gonorrhœa, in the membranous portion of the urethra, which had resisted the passage of the smallest bougies, and every description of urethral instruments, for four successive months. His sufferings were very great; the urine only passed drop by drop; he had considerable pain in the loins, and when he attempted to void the contents of his bladder, the straining was so great that his eyes immediately became blood-shot. He had sleepless nights, tenesmus, and a constant desire to make water, without being able to effect it, the lanceted stilette, or urethral perforator, was passed down to the stricture, and two incisions made. A tea-spoon full of blood followed the incisions. He was desired to go home and keep quiet; to take an aperient; to foment the perineum; to apply leeches, if the pain was great; and to have a bougie passed on the alternate days. This he did, and returned to me in a week. Two more incisions were made, the stricture was perforated, and a No. 10 elastic gum catheter passed into the bladder. He went home immediately in a coach, and, under the superintendance of Mr. Evans, wore the catheter for a day or two, when it caused so much irritation, that he was obliged to leave it off. Bougies were ordered every other day, and in a fortnight from this period, a No. 12 steel dilator could be passed into the bladder with the greatest ease; and there was so little impediment in the urethra, that it would have been impossible to have told where the stricture had been present.

Remarks.—In this case it would have been necessary to have divided the stricture from the perineum, had not this treatment been adopted. Besides the pain and uncertainty of such an operation, the time it takes to restore the urethra by this method is considerable, not taking into account the imperfect manner in which it is usually performed. The superiority of the treatment by perforation cannot admit of a doubt; it is accomplished without much pain; with but little loss of blood;

the urine flows through the natural channel; the time taken is comparatively short; and the cure is complete.—*London Medical Gazette, April* 1834.

CLINICAL OBSERVATIONS,

Delivered at the Middlesex Hospital, by Mr. Arnott.

ERYSIPELAS.

Case I.—*Phlegmonous Erysipelas of Forearm after Injury—Treatment by Incision.*

Thomas Goodman, 44 years of age, three days before his admission, was thrown from a horse, and pitched upon his left elbow. The parts were found greatly swollen and inflamed, with a lacerated and contused wound right across the olecranon, which wound looked foul, and was suppurating. The swelling was such as to conceal the outlines of the joint, and impeded all motion: no fever. Confinement to bed, low diet; a dose of calomel and jalap; twenty-five leeches to the elbow. Lotio plumbi cum opio. Second day, leeches repeated; salines with antimony. Fourth day, the swelling generally diminished; but on the back part of the forearm from the olecranon half way down to the wrist it was increased, with redness of integument—not however strongly marked; but the swelling communicated to the finger that peculiar sensation described as a "boggy feeling." Purulent and glairy discharge, evidently from the inflamed bursa of the olecranon, which part is extremely painful. An incision, about three inches in length, made through the skin and subjacent cellular substance from the elbow downwards—the cellular substance loaded with yellow lymph and presenting one or two minute points of suppuration; the bleeding encouraged by fomentations; poultice afterwards. Sixth day: the inflammatory state of the forearm greatly abated. The case now proceeded uninterruptedly towards recovery.

The morbid condition of the parts in this instance has been here sufficiently described: it was inflammation of the integuments and cellular substance, constituting what has been called phlegmonous erysipelas, from local injury, this local injury involving a bursa. Phlegmonous erysipelas is not an unfrequent result of the injury of a bursa. I have seen some very severe cases of the leg and arm, from wounds of the bursa of the olecranon and patella; and situated, as these bursa are, it is not surprising that inflammation should extend from them to the cellular substance. You no doubt observed, that though the leeches diminished the general swelling, they were not confided in so soon as that "boggy feeling" was discovered in the part which indicated such a condition of the cellular substance as was shewn by the incision. The term "hoggy" has been objected to, as unintelligible. I do not know who first employed it in the description of this disease: I suppose it must have been some one who had crossed a bog; and to every one who has done so, the word will not appear unintelligible or inapplicable. The object in incising the parts was to prevent suppuration and destruction of the cellular substance, which would, in all probability, have here taken place to some extent, had incision been omitted.

Case II.—*Erysipelas of Lower Extremity—Venesection—Disease limited in its progress by the Nitrate of Silver.*

Frances Giles, 42 years of age, was received into Bird's ward with a varicose ulcer of the left leg, of two years standing. She was confined to bed, and had the caustic potass applied over the diseased vein, so as to produce an eschar the size of a shilling: the original ulcer healed kindly; that left by the separation of the eschar more tardily, as a portion of the vein itself had sloughed, and was slowly detached. About six weeks after her admission, when the last mentioned sore was nearly healed, the integuments of the leg, for some extent around it, became inflamed, attended by general febrile disturbance, white tongue, and a pulse with some resistance. No cause was discovered for this attack, but it was suspected to have arisen from an error in diet a few days previously. Twelve ounces of blood, which was slightly buffed, were taken from the arm. A dose of calomel was given, followed by a black draught. Cold lotion was applied to the parts, and she was put upon low diet. On the following day there was less heat of skin, and thirst. The inflammation had spread all round the lower part of the leg. She had been freely purged, and was now put upon salines with antimony: the cold lotion was continued. On the fourth day she had a dose of castor oil. On the sixth there was still less constitutional disturbance, but the inflammation was more extensive, attended with partial vesication and considerable swelling. The redness of the integuments had diminished in intensity in the lower part of the leg, but, on the other hand, it had extended to the knee, upon which it encroached. The solid nitrate of silver was applied to the sound integuments on the lower part of the thigh, so as to form a narrow circle (about half an inch broad) of vesication all round the limb; and warm

fomentations were substituted for cold lotion to the leg, on account of their seeming more agreeable to the feelings of the patient. On the eighth day the inflammation had extended with great intensity up to the circle formed on the thigh by the nitrate of silver, but it did not pass beyond this. On the eleventh, the inflammation seemed to acquire fresh intensity on the lower part of the leg, and it now spread to the foot, with vesication, attended by a bitter taste in the mouth, and yellow tongue; the mercurial; and the saline purgative was therefore repeated for the third time. After this the symptoms gradually abated; and on the fifteenth day, the tongue having become clean and moist, the patient was allowed beef-tea, with infus. rhei, mist. camph., and spt. ammon. aromat. for medicine, under which she gradually recovered.

This case might be called one of phlegmonous erysipelas. The swelling of the leg was very considerable; but there was no reason to believe that the effusion into the cellular substance was other than serous, and therefore not requiring incision.—*London Medical Gazette, May*, 1834.

WESTMINSTER MEDICAL SOCIETY.

Saturday, April 19th, 1834.

DR. GREGORY, in the Chair.

Torsion of Arteries successfully performed at the Northampton Infirmary.

Mr. Costello rose, and said that he had much pleasure in stating to the Society a fact which would be gratifying, and that was, that Mr. Percival, of the Northampton Hospital, had lately amputated an arm, and secured the vessels by torsion. He, Mr. C., had seen the stump about ten days after the operation, and nothing could have done better. It is right to state that Mr. Percival had only made four half twists of each artery in place of six or seven, and still the operation succeeded. It was highly creditable to a provincial hospital to be first to try a new and valuable operation, and especially as this was successful. He hoped he had now silenced those who had opposed torsion. He was aware that it had been tried at St. Thomas's Hospital by Mr. Green, but proved unsuccessful.

Mr. Greenwood was happy to hear such gratifying information, and thought the Society much indebted to Mr. Costello on this and many other occasions for his valuable contributions to science. He, however, thought that further trials of torsion were required before the operation could be adopted in this country. He again referred to M. Velpeau's case of failure, and also to the fact that torsion was not performed at the Hôtel Dieu during the last revolution. He was happy to see Dr. Ryan present, as a mistake was made in the former report of their discussions on torsion, which was, that the operation was not known in 1830, which was not correct.

Dr. Ryan assured the Society, that the gentlemen who reported for the Medical and Surgical Journal were instructed to give faithful and impartial reports on all occasions. He was very much surprised at Mr. Greenwood's statement, because he happened to have been present at the discussion on torsion, and had the clearest recollection that Mr. Costello then stated that torsion was not known in 1830. He now appealed to Mr. C. himself, and also requested the secretary to refer to the minutes of that discussion.

Mr. Costello stated that he certainly had said so, and that the report in the Medical and Surgical Journal was quite correct. The Secretary also referred to the minutes, and the Chairman laid his finger upon the report of Mr. Costello's words.

Mr. Chinnock wished to inquire of Mr. Costello, whether there was any danger of tetanus being produced by torsion.

Mr. Costello replied, that tetanus had not as yet appeared after torsion.—*London Medical and Surgical Journal, May*, 1834.

HOPITAL MILITAIRE D'INSTRUCTION D'ALGER.

Gun-shot Wound of the Thigh—Amputation—Torsion—Cure.

J. ——, a soldier of the 59th regiment of the line, whilst disembarking at Bougie on the 1st of October, 1833, received a ball in the lower part of the thigh, which penetrated into the coxo-femoral articulation. On the 12th, when the military entered Alger, this man's thigh was swollen to more than double its volume. The suppuration in the wound was abundant. He complained of thirst, heat of skin, pains in the epigastrium, and loss of appetite. His pulse was full and frequent, tongue red, and bowels constipated. Although these symptoms were so unfavourable for an operation, M. Baudens amputated on the following day, considering that to temporise in such a case was to deprive the patient of the little chance of success which yet remained to him. Torsion was used to restrain the bleeding from the femoral artery and a large muscular branch. All went on well for eight days; at the end of this time union by the first intention had not taken place, although the edges of the

wound were in apposition. By means of stimulating applications, and pressing the parts close together, the wound cicatrised, and not long afterwards the patient was discharged cured.—*London Medical and Surgical Journal, May*, 1834.

REMARKS ON THE GUINEA WORM.

(Gordius medinensis.)

At a late meeting of the Académie des Sciences, M. Blainville read a letter from M. Jacobson of Copenhagen, containing some interesting and novel details on the guinea worm *(les dragonneaux)*. An Arabian had been admitted into the hospital at that city for a tumour situated at the external malleolus, caused by a worm of this description, which was, after many unsuccessful attempts, at length extracted. A similar tumour having formed on the other ankle, an incision was made, and the instrument having divided longitudinally one of the worms, there escaped from the opening a purulent matter, which (examined with a microscope) showed a great number of little elongated filiform worms, with heads slightly enlarged, and tails short and much thinner than the remainder of the body. Having extracted the worm entire, M. Jacobson then saw that it presented the same phenomena in all its parts; judging from which he was led to the conclusion, that what is called a guinea worm is not one individual worm, but a collection of them living in the same nidus.

M. Blainville thought it would be interesting to discover whether all the worms of this kind presented the same phenomena; and he proposed that M. Clot should be requested to repeat these experiments in Egypt, who often had occasion to observe these animals, and that the physicians attached to the establishment at Algiers should also be requested to take observations of them.—*London Medical and Surgical Journal, May*, 1834.

RE-VACCINATION.

M. Moreau lately called the attention of the Academie de Médecine to the fact of his having then under his care a lady, who had been vaccinated early in life, but who took the precaution of having the process again recently performed, lest she should catch the small-pox from her husband. Though there was ample evidence of the original vaccination having been complete, the new process was not the less successful: the vesicles were perfect—*superbes*. Other cases were mentioned by different members present; and M. Bousquet took the opportunity of stating the following remarkable fact:—The son of Professor Adelon, a lad of sixteen, had been vaccinated when an infant; he received the pock again only eight days before M. Bousquet made these remarks; and that gentleman added, that he obtained as many vesicles as there were punctures made: he had even communicated the virus of those vesicles to four children, in all of whom it succeeded perfectly.—*London Medical Gazette, May*, 1834.

INFANTILE MEDICINE IN PARIS.

It is a remarkable fact, that Paris is the only capital in Europe that has an hospital especially appropriated to the diseases of children, from two to fifteen years of age. We are still obliged to have recourse, in the study of these maladies, to the obsolete works of Underwood and Rosen, which are but a continuation of the nosography of Pinel. A translation from a German author, named Henke, has been published, which may be considered in the same point of view. Three parts of the work of Henke are on the diseases of new-born infants, and in these we consider the treatise of Billiard superior to the German author's.—*London Medical and Surgical Journal, May*, 1834.

ARREST OF HEMORRHAGE FROM LEECH-BITES.—A correspondent says, I was lately summoned to attend to suppress bleeding from a leech-bite in a child, and without success employed all the ordinary modes. As a last resource, before employing the actual cautery, I was induced to try plaster of Paris, in the same state as when taking a cast. I put a spoonful on the bleeding orifice, with the most happy result.—*Lancet, May*, 1834.

ARTIFICIAL PUPIL.

An artificial pupil should never be formed in one eye, as long as the patient is able to see with the other. Nor ought the operation to be attempted if the eye be affected with inflammation, preternatural hardness, dropsy, or atrophy.—PROFESSOR COOPER *in London Medical and Surgical Journal, May*, 1834.

DIGITALINE.

M. Lancelot, apothecary at Chatillon, has succeeded in obtaining the active principle of digitalis, which he has named *digitaline*, and which has analogous effects as the former. It is white, acrid, and very soluble.—*London Medical and Surgical Journal, May*, 1834.

OPERATION.

At the last meeting of the *Royal Academy of Medicine*, M. Blandin presented to the members an old female, on whom he had successfully performed amputation of the whole superior maxillary bone on the left side.—*Lancet, May*, 1834.

ON THE PROBABLE DURATION OF LIFE AMONG MEDICAL PRACTITIONERS.

By Professor Casper, of Berlin.

There is no part of medical statistics more painfully interesting, and at the same time important, than that which relates to the probabilities of the duration of life. Inquiry on the subject, it is true, scarcely tends to lift the thick veil which conceals the limits of individual life, and has little power to satisfy the pardonable curiosity which we all have, to know how long we may have to live: yet, when applied to masses, it enables us to arrive at results of great consequence, whenever provision is to be made for the duration of life in general, or for the probable duration of it at certain epochs.

For upwards of ten years I have been engaged, during my leisure moments, in researches of this kind—the difficulties of which can only be compensated by the value attaching to each result. I have considered most of the circumstances which tend to modify the duration of human life, and those more particularly which are connected with the practice of the different professions. Much has been attempted within the last two hundred years on this subject by mathematical and statistical inquirers, yet much remains to be done; for, in fact, with the exception of Deparcieux's work on the mean duration of life among monastic persons of both sexes, we cannot be satisfied with any thing that has hitherto been accomplished.

Although I should not feel justified in laying at present the whole of my work before the public, there is, notwithstanding, a portion of it with the correctness of which I am so well satisfied as not to hesitate in publishing it: the portion or fragment to which I allude relates to the probabilities of the duration of life among medical men.

Establishments having a close connexion with civilization, such as life assurance companies, those for annuities to survivors, for mutual assurance, &c., have become numerous of late years; and the institution, set on foot by the illustrious Hufeland, for the benefit of members of the profession, may serve as a model of the kind. But none of these establishments, as the experienced can testify, and as lamentable events have too clearly shewn, can possibly subsist for any lengthened period, unless founded on very exact tables of mortality. It was with this impression that the following tabular view was formed.

In order to obtain the most satisfactory points of comparison, I have noted down 624 cases of death, occurring among physicians and surgeons, mostly all Germans,—and excepting anatomists, veterinarians, naturalists, and medical men, who are solely devoted to literature.* I have taken the age of twenty-three as my *point de départ*, both for the medical as well as the other professions (a comparison of which it is my intention hereafter to make public); but if others should choose twenty-four or twenty-five as the age from which we should begin to calculate, it in nowise interferes with the exactitude of the results.

My chief authorities in ascertaining the dates of the births and deaths of those on whom I reckoned were, Ersch, in his Manual of Literature (Leipsic, 1822), and Voigt, in his Necrology (1833), whose valuable collection is known to have been principally formed from manuscripts communicated by the friends and relatives of the deceased.

In column A of the following table we have the ages at which our medical men died: B contains the number of deaths at those ages.

Now we suppose the 624 individuals on whose deaths the table is constructed to have been contemporaries, or that they were all aged 23 at the same time. On this supposition the cypher 624 is placed in column C, opposite the age of 23; and as there are two deaths for that age, 622 is the cypher which must stand next in column C, corresponding with the age of 24 in column A. Thus the column C is formed throughout, until the whole of the 624 are deceased, which is found to be at the 92d year. Column D exhibits the number of years which may be allotted to each period—that is, the probable duration of life according to Halley's method.† I have preferred the form which Halley follows to that of Deparcieux, as being less complicated, at the same time that it leads to the same results. By Halley's method, we find the probable duration of life very

* I have since calculated the mean duration of the lives of seventy-six other medical men—thus making up the entire number 700; but I have not thought it necessary to enlarge my table by the addition of the results, which only serve to confirm those already obtained.

† Philosophical Transactions for 1691 and 1693.

readily: we look into the column C to ascertain at what age only half those living at any given period survive. Thus, if of 122 medical men who are 72 years of age, we find that the half are dead at 77, it would seem that the chances of the 122 reaching that age, and of not reaching it, are equal; and the difference of the ages (77—72)—nearly five years—is the length of time which those of 72 may hope to live.* Nothing positive, of course, can be predicated from the table respecting the probable duration of the life of any individual; but the general conclusions, as experience has proved, are nevertheless *extremely certain*.

TABLE OF THE MORTALITY OF MEDICAL MEN.

A. Age.	B. Deaths.	C. Living.	D. Probable Life.	A. Age.	B. Deaths.	C. Living.	D. Probable Life.
Years.				Years.			
23	2	624	35, 5	58	10	317	11, 0
24	1	622	34, 4	59	17	307	10, 6
25	4	621	35, 4	60	12	290	10, 3
26	3	617	33, 0	61	15	278	9, 7
27	7	614	32, 0	62	14	263	9, 0
28	5	607	31, 4	63	19	249	8, 8
29	5	602	30, 1	64	20	230	8, 5
30	5	597	29, 8	65	11	210	8, 0
31	11	592	28, 6	66	18	199	7, 5
32	8	581	28, 0	67	6	181	7, 2
33	11	573	27, 6	68	16	175	6, 5
34	11	562	26, 8	69	9	159	6, 0
35	8	551	26, 0	70	17	150	5, 5
36	7	543	25, 5	71	11	133	5, 4
37	8	536	24, 7	72	15	122	5, 0
38	14	528	24, 0	73	14	107	5, 0
39	8	514	23, 5	74	13	93	4, 7
40	9	506	22, 7	75	10	80	4, 6
41	11	497	22, 0	76	9	70	4, 4
42	6	486	21, 3	77	8	61	3, 9
43	8	480	20, 3	78	10	53	3, 3
44	8	472	19, 7	79	4	43	3, 0
45	11	464	19, 0	80	11	39	3, 0
46	4	453	18, 2	81	6	28	4, 0
47	14	449	17, 3	82	3	22	4, 0
48	11	435	16, 7	83	3	19	4, 0
49	12	424	16, 0	84	2	16	4, 0
50	13	412	15, 4	85	3	14	4, 0
51	8	399	15, 0	86	2	11	3, 5
52	11	391	14, 2	87	—	9	2, 6
53	10	380	13, 5	88	2	9	2, 0
54	18	370	12, 8	89	4	7	1, 5
55	14	352	12, 6	90	1	3	0, 5
56	13	338	12, 4	91	2	2	0, 0
57	8	325	11, 9	92	—	0	——

From this table we gather the sad certainty of the short career of those who practise the medical art. Supposing the ordinary duration of human life to be 70 years, we see that scarcely a fourth part of our medical brethren attain that age; and hardly one in 15 reaches the age of 80.

* In general terms: if m be the number of persons who have attained the age a, and that at the age n the number is found to be reduced to $\frac{1}{2}\ m$, n will express the probability of vital duration, and $n-a$ the number of years on which the individuals m may calculate.

Or again: if in youth, the resolution be taken to devote oneself actively to the laborious pursuits of medical science and practice, in order to enjoy in old age the fruits of a life of exertion, it is a melancholy fact that one-half the number of practitioners is cut off before that period: so that the remarks of Jean Paul are peculiarly applicable to our case. "The life of man," says this author, "has often been compared to that of travellers or pilgrims: it seems to me rather to resemble that of an innkeeper, who is ever busy about his guests, receiving them, and seeing them depart; and who, on the occurrence of every interval of unprofitable repose, longs for a fresh bustle, desirous of more work when at rest, and of rest when at work; always hoping for the time to come when quiet and ease will suffer him to enjoy his arm-chair in tranquillity; but, in general, before that time arrives, he is gathered to his eternal rest."

There are a few points of comparison between the mortality in the medical and that in other professions, which I cannot willingly omit to notice. Divines *(les théologiens)* among all the professions are those who seem to stand the best chance of long life; and if *they* die off more slowly, or enjoy more longevity than the other, it is just the reverse with medical practitioners. The following summary will show the difference:—

Ages.	Deaths.	
	Physicians.	Divines.
23 to 32	82	43
33 — 42	149	58
43 — 52	160	64
53 — 62	210	182
63 — 72	228	328
73 — 82	141	255
83 — 92	30	70
	1000	1000

And the following list may serve to show how much shorter the probable length of life is among medical men than among others. Taking 100 individuals in each calling, the number who attained the age of 70 have been, among

Divines..... 42
Agriculturists and foresters 40
Employés in high offices..... 35
Mercantile persons and traders 35
Military men 32
Employés in lower departments .. 32
Advocates 29
Artists 28
Teachers, Professors 27
Medical Practitioners..... 24

But what are the causes to which we must attribute this low place in the scale of vitality held by our profession? It would be needless to enumerate them to those who are familiar with the extent of labour which the practice of medicine entails. There is, perhaps, no profession which requires more moral and physical exertion than ours, which allows less of repose, or of that tranquillity which is so conducive both to internal and external life. There is none which exposes the members of it to such bodily fatigue, such mischief from bad weather—such disturbance of the night's rest,—so much watching, irregularity of meals, disorders of the digestive organs, and mental affections of all kinds: in a word, to such dangerous influences, perpetually recurring, and all tending to sap the vital powers. If we add to this, that there are far more practitioners cut off by contagion than are commonly supposed, we shall easily see the groundlessness of the satirical observation, that *sybaritism* is the rock on which medical men are wrecked. It may be mentioned, that in the table given above, the great majority of those who are the subject of it were country practitioners, whom to accuse of luxurious living were too bitter a satire, —one, indeed, wholly undeserved by a profession, which has such strong claims to public gratitude, since those who practise it abridge at least, if they do not absolutely sacrifice, their existence, in endeavouring to prolong that of others.*—*London Medical Gazette, May*, 1834.

THE INDIA

Journal of Medical Science.

CALCUTTA; NOVEMBER 1, 1834.

With reference to that part of Mr. Atkinson's paper, which notices slow poisons, it certainly surpasses belief that the very day, say the day six months from that on which the poison was administered, could be nicely

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* Berliner Medicinische Zeitung, and Annales d'Hygiene.

calculated upon as the last of the unfortunate victim. That there are agents, however, which gradually destroy life, every day experience amply testifies, as for instance, Malaria. History informs us that there were professional poisoners, and we do not see any improbability in supposing that by an almost imperceptible mode of administering some poisonous substance, they might succeed in destroying life in a given time, not within an hour, a day or a week indeed, but with an average approximation to a particular time. A powdered diamond was considered as a slow poison, and Benvenuto di Cellini has some curious observations on the circumstance, in which he asserts, and perhaps correctly enough, that it acted by irritating the coats of the stomach and bowels, which could not rid themselves of the minute sharp spicula of one of the hardest of the crystalline family.

We entirely concur with Mr. Atkinson in his observations on trying to force upon children, food to which they exhibit a marked repugnance. It was as favorite an axiom with "the good old school," as it is called,—that a child ought to have no dislikes in dietetics, as that there was nothing like the flogging system to make boys acquire knowledge and good manners. Nature, no doubt, for wise purposes, has endued man with extraordinary sympathies, which ought not to be unnecessarily violated. Forced feeding may cram a child's stomach, but good digestion and nourishment will not follow the process. Surely it is very easy and safe to give a child something else, when it loathes any particular food. Nay, we conceive that it will, in general, be the most judicious course, to introduce some little change now and then in the materiel of a child's meals.

It would only be amplifying a truism to enlarge upon the subject of peculiar antipathies, as they affect nations and individuals. A native of Middlesex, for instance, deems eel-pie a delicacy, but a Lochaber man would turn from such a mess in horror. Individual antipathies affect also certain medicines. Indeed it would always be a good precaution if the medical practitioner were to ascertain, in the first instance, if his patients have a rooted repugnance to any particular kind of medicine. There are persons on whom the smallest quantity of Calomel acts most inconveniently or alarmingly. With others Opium produces a distressing train of symptoms. We happen to know a person who after repeated trials, finds that Castor Oil never passes through the pylorus, but occasions great pain, until it be rejected by vomiting. In some instances antipathies may be fanciful, but every practitioner knows, that in others, fancy has nothing to do with the matter; and that when the patient has unknown to himself taken the article proscribed by his sympathies, the usual distressing effects have certainly followed.

The article respecting plurality of children suggests curious reflexions on historical evidence. Here are several respectable witnesses testifying to the astounding fact of a lady of quality having been brought to bed of 365 children!! The parties so far as we can make out, had no motive to invent such a story, unless indeed it might originally have been invented by some enemy of the family, to annoy. On the other hand the story may have been as honestly told as it was widely credited, on the supposition that hydatids, or some other tumours were discharged, which in that epoch might perhaps have been mistaken for so many diminutive fetuses.

Whether it is possible that the life of a patient can be prolonged, by tying the Aorta, is a question, we conceive, that yet remains to be solved. We have never heard of any cases in which this desperate operation was had recourse to, but Sir Astley Cooper's and Dr. Murray's at the Cape, with which

Dr. Stewart has kindly favoured us. It is true that in both, the patient died, but this might have been partly the effect of the operation having been too long delayed. In Sir Astley's case, if we remember right, the man lived for about 8 hours after the operation. In Dr. Murray's, the patient survived twenty-four hours. Considering all the circumstances and that the operation had been too long delayed; we cannot concur in the conclusion against the future performance of the operation in question. On the contrary, it appears to us, that the result, as compared with Sir Astley Cooper's case, holds out a warrant for performing the operation in cases where speedy death otherwise must be certain.

Mr. Burt's case reminds us of one that fell under our own notice many years back, and of which we have got the notes. The patient was a Rajpoot and a Havildar; who was admitted into hospital on account of slight febrile symptoms which disappeared after the exhibition of a smart purgative. Next morning he appeared to be quite well —but about 1 o'clock P. M., a person came to call the Medical Attendant who said that the Havildar was suddenly seized with a strange catching about the throat, with violent retching, and that he could not speak. His state may be better imagined from the following extract taken from the notes of the case—

"I set out immediately for the lines, the weather at the time being sultry and oppressive in the extreme; I found him stretched in his bed, and struggling so violently that a sepoy held his feet, while another stood at his head—he could not speak but he was perfectly sensible, and pointed to his throat and head. It would appear that the Pharynx was thrown into a state of spasm which he attempted to overcome by gurgling, hawking and other efforts of the muscles of deglution. The belly was hot and *distended*—great thirst and head-ache. Eyes suffused yellow, which I did not observe in the morning—skin cold and clammy, except about the Hypogastrium, which was dry and hot,—breathing *free*, except so far as the respiration was hurried, by the retching, hawking, and violent efforts to overcome the stricture of the Pharynx. R. Tinct. Opii. M. lx. Sp. Ammon. Aromat. 3ss—aq. q. s. he swallowed the draught with great difficulty, and eventually retained it on his stomach. I resolved to see its effects and sat by his bed side for more than an hour, during which time the violent hawking, retching, struggling, and labourious anxiety seemed to increase rather than diminish, and he had hardly an interval of 2 minutes' respite from these distressing symptoms; nothing, however, was ejected, except a quantity of ropy saliva, seemingly from the internal fauces. The thirst also seemed very distressing, for he still made signs for water, being unable to speak—at the end of the hour seeing that no improvement had followed the exhibition of the first medicine, I ordered an emetic R. Tart. Antimon. gr. iij. Ol. Menth. pip. gtt. ij. aq. tepid. ℥ij. ft. haust. statim. summend. The emetic was worked off with tepid water in the usual way, though it was swallowed with great difficulty. He vomited a quantity of yellowish watery stuff in which no aliment could be detected; indeed he had taken none for 24 hours previously, he also had 3 stools.—5 P. M., has had no recurrence of the distressing symptoms, tumefaction of belly gone, skin warm and soft. No uneasiness about his throat, except what arises from his former exertions, speaks as usual, still troubled with head-ache, but not in such a violent degree, feels languid and inclined to sleep—Habt. Haust. Anodyn." (The patient for some days complained of debility only—and was discharged well.)

Mr. Raleigh's case of generation of air, in the inferior venous system is a very curious one. Soon after death we were well aware that air is disengaged in veins from decomposition, and we were particularly struck with the circumstance in the superior venous system of a malefactor who was executed, and examined twenty-four hours after death. The blood, on the veins being cut into, frothed out like the foam of bottled beer. In Mr. Raleigh's case, however, this generation of air appears to have originated before death. It would be a desirable thing that the *nature* of the air generated were ascertained. That it had no obvious sensible qualities, we conclude from Mr. Raleigh's making no mention of such. We shall be obliged to any of our contributors

or readers, who may favor us with the result of their experience in reference to this subject. There are ample grounds for concluding that air may during life be generated in tissues where (a priori) such a phenomenon might be deemed preternatural. We recollect more than one case in private practice where a discharge of gas took place from the cavity of the uterus. And we have marked off for selection one in England, where a young woman's character for chastity became compromised, even in the opinion of her nearest relations by an insufflation of the uterus from gas—apparently from the decomposition of unpassed catamenia. The curious fact has been proved (supposing the case to be true) that the uterine cavity can expand to its utmost limits from the effect of other stimuli, than those formerly deemed necessary for such a phenomenon.

Among our selections will be found one in which we are free to confess that we take no common interest. We allude to that on the probable duration of life among medical practitioners. The paper is from the pen of a continental Professor; but supposing human life, with a few circumstantial and conventional exceptions to be of much the same value in all civilized countries, the results will, we presume, be acknowledged to be of an important character, at least to those whom they particularly concern—medical men. For particulars we must refer to the document itself, but the inferences are so remarkable that he who runs may read. Of the correctness of the data, we say nothing; but supposing them to be accurately founded (of which there is no ground for reasonable doubt) then must we be allowed to state right frankly, that considering the manifest disadvantages, even as regards length of life, which medical men labour under, more liberal consideration should be made for these and all other peculiar drawbacks than have as yet obtained. This, however, happens to be one of those subjects upon which we do not wish to enlarge, as any thing we might bring to bear upon it, would run the risk of being attributed to merely selfish motives. One fact we have observed, which we leave to make its own impression—very, very few medical men, if they can help it, bring up their sons in their own profession—nay more, most medical men, as far as our experience goes, would, if they could with propriety, prevent their sons from adopting the medical profession as a means of livelihood.

In course of last month, an ingenious brochure, from the pen of Dr. Stewart, of Howrah, occasioned a good deal of discussion. The scope of the pamphlet in question, is to recommend the immediate establishment of an Institution for the accommodation and medical treatment of commanders and officers of ships frequenting this port. So far, we have little doubt, that all his medical brethren would concur in Dr. Stewart's views; when, however, it forms a part of the plan to admit as patients, not only the officers, but the crews of ships, we feel it incumbent upon us to examine a little the grounds upon which the necessity for such an extension of the plan rests.

Previous to doing this, however, it is proper to notice some degree of misapprehension that appears to prevail respecting the internal economy of the General Hospital. We are free to confess that we regard that Institution as a noble monument of benevolence and utility; and that we consider its system of internal management as admirable. The patients in the wards, are, as well as can be arranged, duly classified, sailors' beds being laid out in one place, soldiers' in another, and so forth. It is very true that the accommodations for sick naval officers are not what could be wished, because, in fact, it was never contemplated that persons of their condition in life should

become inmates of the Institution. It is a mistake, however, to suppose that sick officers are placed in an open ward without any distinction of rank or comfort. They are always placed in the small rooms adjoining the wards, and at present, we believe, that the upper ward and separate rooms of the second Hospital (for there are two buildings included in the General Hospital exclusive of that devoted entirely to the sick of the King's Regiment that may be in the Garrison) are entirely given up to persons of respectability who may find it imperative upon them to become patients. During periods of war, on the other hand, or when a great number of recruits arrive from England, or any other contingency when the wards of the Hospital become very full, the little separate rooms alluded to, could not perhaps be given up entirely to the accommodation of even officers. Individual claims upon the Institution then become merged in the necessity of the contingency—for cases occur, where it may be necessary to remove, say even a pauper patient, to one of those separate rooms; however disagreeable such an arrangement might be to persons of another rank in life. It is such a liability, and the absence of such chamber comforts, as they have been accustomed to, that many years back impressed us with the wish that there were some kind of Sanatarium established for sick officers, but for them alone. The necessity of founding one for sailors, while the General Hospital exists, we do not recognize.

Dr. Stewart, it seems to us, has in the consideration of his plan overlooked circumstances of importance to be borne in mind. If we correctly comprehend our friend's meaning, he proposes, as respects seamen, to found his hospital for their use, on the ground that the distance from the General Hospital is so great, and that access from the shipping to Howrah is much more easy than to the General Hospital. It is true that a delay of half an hour, or so, must accrue before a sailor can reach the General Hospital, and there are cases where such a delay may be very serious. Apparently, however, Dr. Stewart appears to forget that a large proportion of the sailors sent, as patients to the General Hospital, proceed from the Calcutta punch-houses, and we will venture to say, that on the whole it will be found quite as expeditious a mode to have them conveyed to the General Hospital as ferrying them over to Howrah. Shipping at the Coolie Bazar too are more readily within reach of the hospital, than of the proposed site at Howrah—add to this, that some ships have Surgeons of their own, and many of those cases that sink on the way to, or shortly after arriving at the General Hospital, have been cases that have already undergone protracted treatment on board ship. Besides, there is no serious obstacle to sending a sick man to the hospital, but there may be great difficulty in ferrying him to Howrah, much depending upon the state of the tide and the weather. The calculation of expences for the support of such an Institution, appears to us to fall far below what the cost would practically be found to be —nor is there a word said about what is to be done with such unfortunate men as happen to be confined to bed in the Sanatarium, when their ships sail; men thus circumstanced, remain as pauper patients in the General Hospital, at the expence of Government, until they can be otherwise provided for. In the Sixth No. of this Journal (for June,) will be found a communication from Mr. Hutchinson for establishing an admission room to the General Hospital in Calcutta, where it is proposed that all cases of accidents, and desperate and sudden ones of illness, might be carried for treatment in the first instance. We beg to recall the attention of our readers to that paper, and to our own comments upon it. As far as sick officers are concerned, Dr. Stewart's plan of a Sana-

tarium at Howrah may answer very well, but with reference to such sudden attacks, as are alluded to above, we consider Mr. Hutchinson's plan as out and out the most eligible of the two.

Our Medical readers will be pleased to find that our anticipations of the sanction of the Court of Directors, being obtained to the establishment of a Medical Retiring Fund, have been realized. We ourselves have never for a moment doubted that this boon of justice would be readily granted to us; but there have not been wanting doubts, and fears, and holdings back, in other quarters, sufficient to throw a damp upon our hopes, but happily not to obstruct their realization. The terms upon which the Court of Directors have permitted the establishment of the Fund, have already been made known to our readers through the medium of the daily prints; but we are enabled to add that in addition to the three authorized retirements, the service will be allowed, as we understand, to give others through such private channels as may be judged most expedient.

MEDICAL INTELLIGENCE.

General Orders relating to the Medical Service.

By the Vice President in Council.

Sept. 22d.—The Honorable the Vice President in Council is pleased to make the following Appointment:

Mr. J. G. Vos, M. D., Officiating Assistant Surgeon of Banda, for five months, on Medical Certificate, in extension of the leave granted to him on the 10th February last.

25th.—The Honorable the Vice President in Council is pleased to make the following Promotion and Alteration of Rank:

Medical Department.—Assistant Surgeon William Edward Carte, A. B., to be Surgeon, vice Surgeon H. H. Wilson retired, with rank from the 25th February 1834, vice Surgeon J. McDowell retired.

Surgeon D. Butter, M. D., to rank from 28th January 1834, H. H. Wilson retired.

Surgeon J. Duncan to rank from 1st February, 1834, C. Robinson retired.

The undermentioned Officer is permitted to proceed to Europe, on Furlough, on Medical Certificate:

Assistant Surgeon Julius Jeffreys, of the Invalid Establishment.

The following Officer has obtained, in the Judicial and Revenue Department, under the date specified, leave of absence from his Station:

15th September, 1834.—Assistant Surgeon K. Mackinnon, M. D., in Medical Charge of the Civil Station of Tirhoot, for three months, to proceed to the Presidency, on private affairs.

The following Promotion is made in the Subordinate Medical Department:

Hospital Apprentice Thomas Absalom to be Assistant Apothecary, from the 31st August 1834, vice Assistant Apothecary D. W. Taylor deceased.

October 2d.—No. 184 of 1834.—The Hon'ble the Vice President in Council is pleased to assign Rank to the undermentioned Assistant Surgeons, from the dates expressed opposite to their names:

Medical Department.—Assistant Surgeon Charles James Davidson, 23d November, 1833.

Assistant Surgeon James Macdonell, 23d November, 1833.

Assistant Surgeon William Dunbar, M. D., 14th January, 1834.

Surgeon Richard Mowbray Martin Thomson, attached to the Bhurtpore Political Agency, is placed at the disposal of the Major General in Command of the Forces, from the date of the abolition of that Agency.

6th.—Surgeon James Morton, of the 25th Regiment Native Infantry, appointed a Senior Assistant to the Commissioner of Arrakan.

Mr. Assistant Surgeon H. J. Thornton, attached to the Civil Station of Commercolly, is permitted to visit the Presidency, on urgent private affairs, and to be absent on that account for a space of three weeks.

9th.—No. 188 of 1834.—The Hon'ble the Vice President in Council is pleased to make the following Promotion:

Medical Department.—Assistant Surgeon Edmund Tomkyns Harper to be Surgeon, from the 16th September 1834, vice Surgeon J. Nicoll deceased.

No. 191 of 1834.—The Honorable the Vice President in Council is pleased to make the following Appointment:

Assistant Surgeon Charles Llewellyn to officiate in Medical Charge of the Civil Station of Mymensing, vice Green.

The following Officer has obtained leave of absence in the Judicial and Revenue Department, under date the 22d ultimo:

Assistant Surgeon James Gregory Vos, M. D., officiating in Medical Charge of the Civil Station of Banda, for five months, on Medical Certificate, in extension of the leave granted to him on the 10th February last.

13th.—Mr. G. Turnbull, Assistant Surgeon, attached to the Civil Station of Jaunpore, for two months, to visit the Presidency, preparatory to applying for permission to proceed to Europe on Furlough.

16th.—Surgeon James Morton to be Senior Assistant to the Commissioner of Arracan.

Assistant Surgeon H. J. Thornton, attached to the Civil Station of Commercolly, has been permitted, in the General Department, under date the 6th instant, to visit the Presidency, on urgent private affairs, and to be absent on that account for three weeks.

By the Major General Commanding the Forces.

September 13th.—The undermentioned Officer has leave of absence:

63d Regiment Native Infantry—Assistant Surgeon J. Smith, from 30th August to 13th December, to proceed on the River, and eventually to visit the Presidency, on Medical Certificate, preparatory to submitting an application for Furlough.

15th.—The Meerut Division Order of the 3d instant, directing Assistant Surgeon A. Gilmore, M. D., to join and do duty with His Majesty's 26th Regiment, is confirmed.

16th. — Apothecary Mathew Barrett, lately attached to the Native Hospital at the Presidency, is posted to the Hospital of His Majesty's 26th Foot, and directed to join without delay.

17th.—Assistant Surgeon E. W. Clarributt, who was appointed, under instructions from Government, in General Orders of the 30th ultimo, to act as Civil Surgeon at Burdwan, having furnished a Certificate of his inability from sickness to undertake that duty, the Commander of the Forces is pleased to direct Assistant Surgeon W. Dunbar, M. D., at present at Dum-Dum, to proceed forthwith to Burdwan, and to act as Civil Surgeon at that Station, during the absence, on leave, of Assistant Surgeon Cheek.

Assistant Surgeons C. J. Davidson and T. Leckie are appointed to do duty with the Artillery at Dum-Dum.

20th.—The Agra Garrison and Station Order of the 2d instant, appointing Assistant Apothecary G. E. Poole, of His Majesty's 13th Light Infantry, to act as Apothecary in the Hospital of that Regiment, during the absence, on duty, of Apothecary Grose, is confirmed.

23d.—Assistant Surgeon T. Stott, attached to the 45th Regiment, is directed to proceed and join the 68th Native Infantry.

Assistant Surgeon G. C. Rankin, on being relieved from the charge of the 68th Regiment, will join and do duty with the Detachment of the 5th Battalion of Artillery proceeding to Ajmere.

24th.—Assistant Apothecary John Williams, now doing duty with the 3d Troop 3d Brigade Horse Artillery at Muttra, is posted to that Troop, in the room of Assistant Apothecary D. W. Taylor deceased.

27th.—Surgeon J. Thomson, 2d Regiment Light Cavalry, to be Field Surgeon.

The following Officer of the General Staff will conduct the details of his Department with the Force:

Superintending Surgeon W. Panton.

Assistant Surgeon W. A. Green, who is placed at the disposal of the Commander of the Forces, in Government General Orders of the 18th Instant, is directed to proceed forthwith to Dacca, and to afford Medical aid to the 53d Regiment Native Infantry, during the absence on duty of Assistant Surgeon J. Fender, or until further orders.

29th.—Assistant Surgeon A. Colquhoun, at present attached to the Left Wing 6th Native Infantry, is, under instructions from Government, appointed to act as Civil Assistant Surgeon at Tirhoot, during the absence on leave of Assistant Surgeon K. Mackinnon, M. D., or until further orders.

Assistant Apothecary Thomas Absalom, lately promoted, is directed to do duty under the orders of the Superintending Surgeon at Cawnpore.

October 4th.—The Station Order issued by Lieutenant Colonel C. F. Wild, Commanding at Loodianah, under date the 14th ultimo, directing Assistant Surgeon W. L. McGregor, M. D., of the 4th Troop 2d Brigade Horse Artillery, to assume Medical Charge of the 49th Regiment Native Infantry, is confirmed.

Assistant Surgeon C. Griffiths, now doing duty under the Superintending Surgeon at Dinapore, is, under instructions from Government, appointed to perform the Medical duties of the Civil Station of Gyah, until further orders, vice Assistant Surgeon W. B. O'Shaughnessy, M. D.

Apothecary M. Barrett, who was posted to the Hospital of his Majesty's 26th Foot, in General Orders of the 16th ultimo, is directed to proceed to his destination by water.

7th.—The Meerut Division Order of the 19th ultimo, directing Apothecary J. Dick,

attached to his Majesty's 26th Foot, to remain at Meerut, and do duty in the Hospital of His Majesty's 11th Light Dragoons, and appointing Assistant Apothecary J. Taylor to act as Apothecary to His Majesty's 26th Foot, is confirmed.

Assistant Surgeon J. Barker, lately placed at the disposal of the Major General Commanding the Forces, is posted to the 50th Regiment Native Infantry.

8th.—Under instructions from the Right Honorable the Governor General, the Sanatarium at Cherra Poonjee is abolished, and all expenses connected with it are to cease from the 1st December next.

Assistant Surgeon H. Chapman, now in Medical Charge of the Detachment, will accompany it to Dinapore.

Apothecary G. D. Wiltshire, attached to the Depot, is posted to the Hospital of His Majesty's 44th Regiment at Chinsurah, and directed to join by water.

Assistant Steward J. Parnell will proceed as Assistant Apothecary and Assistant Steward with the Detachment to Dinapore.

The Major General in Command of the Forces is pleased to make the following removals and postings of Medical Officers:

Surgeon R. M. M. Thomson, who was placed at the disposal of the Major General in Government General Orders of the 2d instant, from the 62d to the 51st Regiment Native Infantry at Neemuch.

Surgeon C. B. Francis, (on Furlough) from the 47th to the 56th Regiment Native Infantry.

Surgeon Joseph Duncan, from the 14th to the 47th Regiment Native Infantry at Secrora.

11th.—The undermentioned Officer has leave of absence:

40th Regiment Native Infantry—Assistant Surgeon Andrew Walker, (1st), from 1st September to 1st May 1835, to visit the Hills North of Deyrah, on Medical Certificate.

13th.—The Meerut Division Order of the 23d ultimo, directing Assistant Surgeon J. Murray, M. D., of the 1st Brigade Horse Artillery, to join and do duty with the Detachment of His Majesty's 11th Light Dragoons proceeding on Service, is confirmed.

The Meerut Division Order of the 23d ultimo, directing Steward T. C. Gale and Assistant Apothecary G. Bayley, attached to His Majesty's 11th Light Dragoons, to accompany the Wing of that Regiment proceeding on Service, and appointing Hospital Apprentice G. Oliver to act as Assistant Steward with the Head Quarters of the 11th Dragoons, during the absence on duty of Steward Gale, is confirmed.

The Division Order by Major General the Honorable J. Ramsay, Commanding the Meerut Division, under date the 28th ultimo, appointing Assistant Surgeon W. Spencer to the Medical Charge of the 2d Company 2d Battalion of Artillery, on its march to Agra, and directing Assistant Apothecary J. Robinson to proceed with the Company, is confirmed.

15th.—The following individuals, of the Subordinate Medical Establishment, are posted to the Hospital of His Majesty's 62d Regiment of Foot, and directed to report themselves without delay to the Commissary General, from whom they will receive their orders for proceeding to Moulmein:

Apothecary John Mackenzie, attached to His Majesty's 49th Regiment.

Assistant Apothecary Robert Maycock, doing duty at the General Hospital.

Hospital Apprentices George Cockburn, James Thomson and James Giddens, from the General Hospital.

16th.—That part of the General Order of yesterday's date, removing Apothecary John Mackenzie from the Hospital of His Majesty's 49th to that of His Majesty's 62d Regiment, is cancelled, and the Major General in Command of the Forces is pleased to appoint Assistant Apothecary Robert Maycock, Acting Apothecary to the latter Corps.

Apprentice George Cockburn, who has been directed to join the Hospital of the 62d Regiment, is appointed Acting Assistant Apothecary to the Corps.

These appointments to have effect from the date of the arrival of the individuals at Moulmein.

Apprentice George Frederick Gore, at present at the General Hospital, is appointed to the 62d Regiment, and directed to report himself immediately to the Commissary General.

TO CORRESPONDENTS.

The following Communications shall appear as soon as possible:—

EDINENSIS, No. II.

A Post-Mortem Conversation, by E.

Case of Ruptured Vein, by DR. WISE.

Case of Retention of Urine, by P. STEUART, ESQ.

J. RANKEN, ESQ. on Croton Oil in Chronic Splenitis.

Cholera in the late Chooar Campaign, by J. McCOSH, ESQ.

CAMPBELL, A. ESQ. cases of Glandular Swelling, treated with Iodine.

DR. J. ESDAILE'S case of Formation of Fat in the Heart, &c.

KIRKMICHAEL.

J. McRAE, ESQ. on Calculus.

Remarks on Change of Air, &c. by A. BURN, ESQ. Bombay Establishment.

Two preparations of Morbid Anatomy have been received: we trust the cases will speedily follow.

DR. BURT'S promised case is anxiously looked for.

Mr Raleigh's Case of hare lip

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Original Communications.

CHOLERA IN THE CHOOAR CAMPAIGN—THE LATE DR. G——D.

Before entering upon the subject of this paper, it may be useful to observe, that the force employed against the Chooars, consisted of three columns, under the command of a Brigadier. These columns were from position styled the right, the centre, and the left. Each column was composed of one Regiment Native Infantry, and a Detachment of Artillery, and Bildars, together with occasional parties of a Provincial Battalion. Each column had its own Camp, and was seldom within ten or fifteen miles of any of the other columns. The scene of warfare was one dreary, wild, of noxious jungle; with a small patch of rice ground, cleared here and there; and a little rocky hill covered with impenetrable brushwood. Wild animals, of all descriptions, infest that pathless wilderness. Elephants in herds, wander from forest to forest, unmolested: the tiger sleeps in his lair within hearing of the village Nikara, and makes his accustomed sallies upon the sacred herd unavenged: and the leopard and the bear, and the hycna and the tusky boar, encounter each other in every glade. The enemy were as wild and as wakeful; as cunning, as cowardly cunning, and invisible, as the beasts of prey; could thread the thorniest thickets naked with equal ease, and find subsistence in the roots and berries, when their houses and their homes were destroyed: could lie in secret amongst the reeds with feline sagacity, till the expected victim of their revenge came within the range of their arrows, and struck off into heavier cover the moment when perceived. But I must not occupy your columns on topics so little professional and now take up the subjects intended.

Soon after leaving Barrackpore on the 15th November, 1832, Cholera broke out in the left column of which the 34th N. I. was the principal part. For nearly a month it assumed the sporadic form; selecting for its victims, the Camp-followers and the weaker seapoys only. Though a good many of those attacked were carried off, still it did not excite much alarm: and we hoped by constant change of ground, and the increasing cold weather, to leave it somewhere behind us.

However after we had penetrated about twelve marches into the interior of the jungles, it burst forth at Luckipore with all the violence of an Epidemic: and raged for several days with most appalling mortality. The hospital became crowded to excess, and several extra *pauls* were added to it. Two, three, and four poor fellows were carried in every hour, and so rapid was the progress of the disease, that many died a few hours after they were attacked.

Nor was it there confined to the lower caste people and weakly; the stoutest men in the Regiment were attacked: and a fine strapping fellow might be seen attending his master at the mess in the evening, and before the next morning's breakfast, he was dead and buried.

Many of the followers had an antipathy to come into such a concentrated scene of mortality as the hospital, and preferred taking their chance amongst their bullocks, under a hackery or a tree, or in the drenching dews of the open air. Without medicine, without attendance, without the knowledge of any one, they crept out of the way, and were discovered next day cold and lifeless.

Many others rather than run the risk of living longer in Camp, fled into the woods: and attempted to find their way home, to meet upon their path the numerous beasts of prey, and the enemy as savage as merciless, and still more dangerous than the wild beasts themselves, through many a weary mile.

The retching of those attacked, the groans of the dying, and the lamentations for the dead, occupied the ear incessantly night and day; graves were seen a digging in every direction, and funeral piles were smoking all around; tainting the very atmosphere with human empyreumatic odour. Flocks of kites and vultures hovered over the dismal scene, and screamed to be deprived of their expected prey; troops of jackals prowled about at night, tearing open and robbing the newly tenanted

graves; and the short hoarse bark of the hycna, like a knell from a death's head, grated upon the startled car, warning us of our mortality, and of his perhaps groping for our bones before another day's dawn; public poojahs and processions were frequently performed by the Natives, each caste apart by itself with all the noisy solemnity characteristic of Hindoo and Mussulman rites: the one trying to outdo the other in their supplications to their favourite deities to avert the dreadful calamity. To complete the tragick scene, the savage inhabitants apparently exempt from the disease; looked on composedly from the skirts of the woods, as if they anticipated our extermination without there being occasion for any efforts from themselves.

On one of these nights (about midnight,) being worn out and exhausted by the labours of the hospital during the day, and relieved by Dr. G—d, whose turn it was for duty, I had thrown myself down upon my couch to have a little refreshment, when a servant of Dr. G—d's entered my tent with a lantern in his hand, and said, his master was very ill, and desired to see me. I at first concluded he had been attacked by Cholera, and went to his tent instantly. When I got near the door, I heard him crying out in great agony and agitation—Oh, my God! Oh, my God!! On entering, I found him lying upon his back, writhing in great distress, and labouring under the deepest mental excitement. I asked what was the matter, but he did not recognize me. I put my hand upon his shoulder, and again asked what was the matter, when he turned round, and took me by the hand and said, "oh, McCosh, I have attempted to destroy myself! I have swallowed an ounce of laudanum! there is the bottle! (pointing to it upon the table) I cant stand to see the mortality of Camp! I cant stand it!! I was not made for it! I provided the laudanum on purpose!" He entreated me to forgive him for leaving me alone in such a trying predicament; not to think too severely of him when gone; and to apologize for his conduct to the rest of the officers. At the same time expressing his astonishment, that the laudanum was so slow in taking effect. I looked at the phial, and found that it still contained a few drops of laudanum. I asked how long it was since he took it, and he said, half an hour; and again expressed his astonishment that it did not operate more actively.

Having no stomach pump in Camp, I proposed giving him some Emetic: but he laughed derisively, and said, it was too late. I insisted upon his taking some antidote, but he beseeched me not to think of it, saying, how could he look one of the officers in the face after what he had done; and that for the rest of his life he would be disgraced and miserable.

Seeing his resolution to allow no attempt to save him, I now awakened several of the officers to my assistance, and told them what had happened. When they were assembled around him, he told them what he had done, and for what reason; and begged their forgiveness. By that time I had prepared a large dose of Tart. Antim., and seeing him still persist in his resolution to die, and every minute becoming of more and more vital importance, we closed in upon him by actual force; some holding his arms, some his legs, some his head, and another stopping his nose, while he cried and struggled like a child. In this manner we succeeded in forcing him to swallow the first dose. After waiting for a short time, and seeing no effects, we repeated the dose, being obliged to adopt the same revolting measures as at first.

At length finding resistance useless, he gave in, and promised upon condition, to take any thing that was offered to him: he was much exhausted by his struggles, and evidently sinking: expressed the deepest contrition for what he had done, and hoped for forgiveness from God for so unwarrantable a deed. The two doses of Tart. Antim. having failed to produce any vomiting, and not being able to find any Sulph. Zinci, I administered two successive doses of Ipecacuanha, which he took without any compulsion. Still these failed to have the desired effect, the stomach had become so torpid that I almost despaired of being able to save him.

At last I was fortunate in finding a small quantity of Sulph. Zinci, and after giving him two repeated doses of it, brought on copious vomiting. The matter ejected smelled strongly of laudanum.

He was very thankful for being dragged from the brink of the grave, and became more easy and composed, though he anticipated nothing but shame and bitter reproach for life. Seeing no immediate danger to be apprehended, I left him in charge of two of the officers, with cautions to keep his amputating case and other edged instruments out of his reach.

Long before day-light next morning I was called up to accompany a Wing of the Regiment on an attack against three villages about four miles from Camp. Before starting I visited Dr. G—d, and found him sound asleep. Being satisfied from the state of his pulse, and other concomitant symptoms, that his sleep was not dangerous, I did not awake him, and took my place along with the officers at the head of the seapoys. The order was whispered

along the line to load, and as soon as the cartridges were rammed home, the Wing marched off in breathless silence.

When I returned to Camp about ten, I found Dr. G—d in the lowest stage of melancholy imaginable and confined to his couch with tent shut up and in total darkness. He complained much of retentio urinæ. I introduced the catheter and gave him instant relief. Gave him a gentle cathartic.

Hospital more crowded than ever with cases of Cholera. More poojahs performed.

A few days after we marched from Luckipore, I don't remember having a case of Cholera after leaving it. The next place where we halted was called Boonga. Two marches distant from Luckipore. What a happy change we there experienced compared to what we suffered at Luckipore. I had there the satisfaction of seeing numbers of my patients walking about convalescent. There was no mistaking them, for every one wore my label as they called it. In almost every case I applied a blister over the epigastric region, formed by Nit. Argenti, and derived much benefit from it. I found it very superior indeed to the emplast. Lyttæ. The latter though kept constantly applied did not rise for five or six hours, but from the constant tossing and writhing of the patient it was almost impossible to keep it applied: whereas the caustic blister was in full action in less than two hours, and when once made, incapable of being deranged by any contortions of the body, or any attempts to take it off. The whole process consists in wetting the skin, and rubbing it over with a stick of Nit. Argenti. I once tried to raise a blister instantaneously by boiling water, but found it too revolting to continue it. The plan I adopted was to invert a funnel with a fold of cloth tied over its mouth, upon the stomach, and by introducing the pipe of another smaller funnel into the pipe of the larger, the water was applied without excoriating any other part of the body. As to the rest of the treatment, I have unfortunately nothing more certain or successful to advance than is contained in every treatise upon Cholera.

The number of deaths in consequence of Cholera amounted to about seventy. About three-fourths of those were Camp-followers. Most providentially not a European was attacked, such is the caprice of this awful disease.

I believe it is pretty well ascertained, though not easily to be accounted for, that if Cholera break out in a Camp, and if that Camp be broken up into parties the chances are that the greater number of parties will thereafter be exempt. This was strikingly exemplified in two Companies of the 34th N. I. that were detached from the left column, and had not a single case of Cholera after, though the column continued to suffer very severely.

As it does not seem necessary in order to ensure these advantages, to separate the parties more than a few miles, the observance of this might often be of the utmost importance when a large field force is attacked by Cholera.

To return to Dr. G—d's case—his health at Boonga was nearly restored though he still continued low-spirited and desponding, and seldom left his tent; nor was his state of mind at all alleviated by the news of the failure of his agents reaching him. Still he seemed to be weathering the storm.

During our halt at Boonga, very correct information was received of a large body of the enemy having taken up a strong position amongst a number of rocky hills, about six miles from Camp, where all their wives and their families, their cattle and their grain, and every thing they possessed, were collected together; and defended by every man who could stretch a bow-string, or lift a *kulharrie*. On the morning of the 21st December, (if I rightly remember,) a Wing of the Regiment was under arms for an attack upon the *Aral*. A medical officer had hitherto accompanied every *dour*, and I joined it, taking the precaution of borrowing S.'s double-barrelled gun and a few bullets for the occasion. The morning was dark, cold, and frosty; and we felt the ice crackle beneath our feet as we trode along. The pathway was frequently so narrow that we were obliged to fall into Indian file; and so closely beset with jungle, that it was a common thing to get a dash in the face from a bush, or to find oneself brought up with a creeper across the throat. There was no time to be nice about picking our way—those in front plodded on full speed, having full confidence in those in the rear not lagging behind, for on such occasions every seapoy instinctively crept as close to his neighbour as the cartridge box allowed him. But lest you should think me again going beyond the province of Medical intelligence, I revert to my subject.

On entering Camp, one of the officers came out to meet me, and to my horror, said, that G—d had cut his throat from ear to ear, and that Dr. T. was come over from Head-quarters for the purpose of inspecting the hospital in the capacity of Superintending Surgeon, and was waiting anxiously to see me. Soon after I met with Dr. T.; I had never seen him before; and on his expressing his wish to inspect the hospital, I went round with him, and shewed him the convalescents; having had no fresh cases of Cholera for several days, Dr. T. immediately after left Camp without even waiting for breakfast. Soon after I entered

my tent, I was summoned to a Court of Inquest, and to give in a verdict, upon Dr.G—d.

Very early that morning Dr. T. arrived in Camp, called upon Dr. G., told him he was come over with authority to report upon the hospital, and suggested the propriety of G.'s going out before hand, to see that all was in a fit state for his inspection.

Poor old G. accordingly left his tent to go to prepare the hospital, (in which, by the way, he had done little or no duty since his late illness; indeed I am not certain of his having once visited it since). After Dr. T. had remained some time, and Dr. G. not returning, he began to grow uneasy, and to make enquiries if any body had seen G., but could get no information concerning him. Enquiries were made at every tent and in every corner of Camp, but no accounts could be got of Dr. G. There was something very mysterious in all this, and so much at variance with G.'s habits, that the officers became alarmed for his safety. After nearly half an hour spent in fruitless enquiries, some one by accident looked into his palanquin, and there lay his body lifeless, swimming in blood.

When I saw him, he was lying in his palkee upon his back; a deep cut was inflicted below the larynx; an amputating knife lay by his right side, and his amputating case, with the lid open, stood upon the drawer of his palanquin. He seemed to have laid himself down with the determination of not making a struggle, and to have made the fatal incision with professional skill. Now what could have been the reason of Dr. G—d's doing such a horrid deed? True he had made a former attempt about ten days before to destroy himself, but that was under the effects of intense mental excitement, wrought up to a degree bordering upon madness, owing to the prevailing mortality; but then he had nearly recovered from his late despondency, and had no longer Cholera to encounter. True he had heard of the failure of his agents, but that news he heard several days before, and he was then getting the better of it too.

Was there any thing connected with the hospital, of which he had reason to be ashamed, or to be afraid of its being known? No, certainly!

Did Dr. T.'s bearing towards him and his very unexpected visit at such a critical period, impress his acutely sensitive mind, and morbidly irritable temperament, with the conviction, that (without any intention on Dr. T.'s part) he was come over to upbraid him with his late attempt at suicide, as unworthy of the responsibility of his situation in such a conjuncture; and unfitting him for any longer holding any medical charge? Though that attempt was known only to the officers of the Regiment and from delicacy towards Dr. G. kept a profound secret till his death; and though Dr. T. could have no possible design of wounding his feelings on that account, yet the general opinion in Camp was that G. in the alarm and agitation of the moment, concluded this to be the true cause of T.'s visit, and thought it too great, too painful an ordeal to endure, more galling even than death. * * *

Dr. G—d was a man of the most amiable and inoffensive disposition in the world, of very retired habits, and altogether out of his element in the bustle of Camp. The least derangement in the regularity of his establishment discomposed him; and if his palanquin moved from his side upon a march, or his horse was not within call, it seemed to affect him as keenly as if he could never see it again. Poor old man! how unsuited he was for the arduous duties and hardships, and inconveniences of a campaign; who estimated the domestic retirements of a sequestered retreat as the greatest blessing, and would have been contented and happy in his grey hairs, in the most solitary corner of Hindostan. Though habitually melancholy, he was fond of music to enthusiasm, and played upon the violoncello and some other instruments with great taste and skill. He also excelled in landscape-painting; was well versed in Persian literature; and read French and Italian fluently. His professional acquirements were equally distinguished and secured him the confidence of his patients, and the respect of his brother practitioners. In private life he was no less esteemed, and so happily were the elements of his nature combined, that he perhaps lived without an enemy, and died without experiencing a feeling of resentment. During the early part of his career he served in the Navy; when he was captured by the French, and detained a prisoner in France for about ten years. On his deliverance, he obtained an appointment in India.

J. M'Cosh, *Asst. Surgeon.*

Gowalparah, 12th Sept. 1834.

CASE OF FORMATION OF FAT IN THE HEART AND NEIGHBOURING BLOOD VESSELS.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—If you think the following case of sufficient interest, you will oblige me by giving it a place in your Journal.

Your obedient Servant,

J. Esdaile, M.D., C.A.S.

Azimgurh, 2d Aug. 1834.

At the desire of the Magistrate, I examined the body of Oojeer Ali on the 30th

July, and found the following appearances. The body was that of a man of sixty years of age, plump and sleek, but not corpulent: the only appearance of injury externally, was a bruise on the inferior angle of the left scapula, where the skin was abraded and blood effused among the muscles. On opening the body, there was a deep layer of yellow fat beneath the skin, and fat was extensively deposited on all the internal organs; the interlobular spaces of the lungs were studded with masses of fat: all the organs appeared extremely healthy. On opening the pericardium, there was more than the natural quantity of fluid, and the heart was large and fat. When the aorta and large blood vessels were cut across, a dense, yellow substance, exactly like fat, was seen filling them, which also occupied both auricles, becoming fibrinous in appearance, as it passed through the auriculo-ventricular openings, and mingled with the calumnæ carneæ of the ventricles, from which it could scarcely be distinguished, and could with difficulty be separated from them. This substance, when pulled out of the aorta and carotid arteries, retained their shape for some distance, gradually becoming fibrous, and ending in coagulum. The coronary arteries were also filled with it. Where most dense, this deposit was covered with a red, vascular coat, which could be pulled off, and on being squeezed, gave out abundance of oily globules, which floated on water.

I did not remark any signs of inflammation. The history given by his friends was, that eight days ago, a man had given him a severe blow on the back with a cudgel; he complained of pain soon after, took to his bed, and had not eaten since.

This case appears to me curious, as shewing the tendency of any accidental formation in the living body, to take on the prevailing habit of the system. The progress of the disease appears to have been this: a violent blow over the region of the heart, would seem to have deranged the circulation, already lowered by old age; fibrin began to be slowly deposited, became organised, and was converted into fat, the secretion, the blood vessels, were most disposed to form, and accumulated until the circulation was obliterated.

MR. RANKIN ON CROTON OIL IN SPLEEN.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—Having observed Dr. Hobson's communication in the *London Medical Gazette* of the 13th July last, on the use of croton oil as a counter-irritant, I was induced, some months ago, to try its powers on an inveterate case of enlarged spleen then in the 38th N. I. Hospital. The mode of application and the appearances produced are well described in No. 38, of Johnston's *Med.-Chirurgical Review*, page 448.

My patient was a seapoy, who, after remaining in hospital for some time under the usual treatment, without benefit, had been indulged with six months leave of absence on sick certificate, but had returned, about a month before, without the slightest diminution of the diseased viscus. Under these circumstances the oil was applied by friction over the diseased part, but whether from its inferiority, or from some peculiarity—from 15 to 20 drops were found necessary (at each application) to produce the desired effect. The patient complained a good deal, and the suppuration was very considerable, but within a week from its first application the spleen was perceptibly diminished, and the patient himself described it as feeling much lighter. At the end of three weeks the viscus was scarcely larger than natural, and the ulcerated surface being healed, he was discharged declaring himself quite well. I must not omit to mention that in treating the above case the Tinct. Fer. Mur. combined with bitter infusions, was administered internally—occasionally changed for the Sulph. of Quinine. But though perfectly willing to allow these remedies their full share of merit, the previous treatment amply proved that even with the assistance of the Ung. Tart. Ant. externally, they were not adequate to the cure.

After treating several cases of less importance with similar results, I mentioned my success to Messrs. Barker and Row of the 66th and 73d Regt. N. I.—and was happy to hear, two days ago, that they had been equally fortunate. Mr. Row, however, found the oil prepared by himself, much more efficient than that furnished for the use of the hospital—its purgative effects being more conspicuous.

The frequent occurrence of visceral enlargement as a consequence of the fevers of the country, but I believe more particularly of Bengal, will probably render the above memorandum interesting, and I see no reason why the same remedy (with a judicious modification of the internal treatment) might not be employed with a prospect of equal success in cases of diseased liver, although I have hitherto had no opportunity of making the trial—that it may be used with *greater* benefit in many cases where the Tart. Emet. Oint. has heretofore been applied, I have experienced in several cases.

Mynpoorie, Sept. 29, 1834.

SKETCH OF DR. KNOX.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Dear Gentlemen,—If it should again curiously happen, that SCOTUS's scalpel and mine meet in the body of the gentleman, whose name heads this article, I beg you will give SCOTUS the "pas," the doctor being his, by right of first possession.

Dr. Knox began his career, I believe, in the public service, and resided many years at the Cape, as a Regimental Surgeon, where he made himself favourably known at Head Quarters, by his professional talents and research. Comparative anatomy was his favourite pursuit which he followed with ardour and success, in that country, so interesting to the naturalist. On his return home, the late respected and facetious Dr. Barclay, who was then declining in health, appreciating his talents, associated him, with himself in the labours of the lectures and dissecting rooms, with the understanding that he was to succeed Dr. B. To qualify himself for this, he literally shut himself up for a year, and by the most intense application, he left his study, at the end of that period, skilled in all the anatomical knowledge of the day, and able to impart it to others; being only deficient in fluency, and the graces of manner, to be attained only by practice; to acquire which Demosthenes himself never bestowed more pains, or overcame greater difficulties.

The spectator, and Dr. Knox himself, estimate the charms of his outward man very differently; or perhaps conscious of not being an Antinous, he tries to attract observation more to the beauties of his waistcoat, than his face, and knowing that, "'tis manners alone make the man," he hopes by surrounding himself with the graces, to efface any unfavourable impressions derived at first sight from his Physiognomy. The profile of the Doctor's countenance may be called antique, in as much as it is quite *Socratic*. An ill-formed chin, wide mouth, and thin lips; nose "retroussé;" a bald, low, but compact forehead; a face seamed deeply with the small-pox, which has probably extinguished the eye which is missing, make up Dr. Knox's pretensions to physical beauty. His figure however is neat, his clothes exhibit considerable sartorial skill, and the labours of the toilet are elaborately performed.

Let us take a look at his daily routine in Surgeon's-square, by which I hope a tolerable idea of his personal and mental qualities may be obtained. At 7 o'clock every winter morning, whatever the weather, Dr. K. walks two miles from his house in the suburbs, to Surgeon's-square; superintends the dissection for the day, breakfasts, and then dresses for lecture. It is during this meal, and the subsequent operations, (the only leisure time of his day) that the favoured few who are admitted within the veil, form a very agreeable opinion of the Dr.'s pleasing powers and social qualities. He is well read in the *Belles Lettres*, and has a *pat* quotation ever ready, is full of "quips and quiddites;" has an acute sense of the ludicrous, and is "not only witty himself, but the cause of wit in others." The joke, pun, and repartee, go merrily round, and the Dr.'s joyous cackle, gradually deepening into a glorious "guffaw," is heard above all the rest; the abnormal course taken by the pieces of toast, after endangering suffocation, or the razor sympathising with the midriff, suddenly checks a cachinnation, by inflicting a gash on his chin, when the struggle between prudence and mirth, in the remaining "window of his soul" is irresistibly comic. The toilet is at last completed, the precepts of "Neckclothiana" duly observed the flowered velvet vest is complacently viewed, the right index finger is insinuated into the diamond ring, and spectacles span his nose—that rush up stairs, and trampling over head, shew the hour of lecture arrived, and the eagerness of the pupils to obtain good places, let us mount with the lecturer. Before going farther, pray, admire his attitude; he rests his left elbow on the black marble table; one leg is in advance, and the *diamond* solicits your regards, and points to the parts to be described. His diction is smooth and polished; the descriptions clear and minute, conveying quickly and strongly the desired impressions; the manner is bland and correct, (in the performer's opinion very graceful) and altogether I have rarely heard a more agreeable lecturer, though a smack of affectation, and a want of energy, lessen the general effect.

In an hour after, the lecture is repeated to another audience, the room not being able to accommodate all. The rest of the day is spent in the dissecting room, and at eight o'clock at night, he recapitulates the forenoon lecture, to whoever chooses to attend; exhibiting a rare combination of talent, industry, and devotion to his profession, justly rewarded by great success and general respect. During the summer, he gives a delightful course of Comparative Anatomy, as interesting to the amateur, as the professional man, and I remember, the present Marquis of Breadalbane, was a constant and interested listener.

During the dreadful Burke* affair, the rival lecturers, whom he had distanced, thought it an excellent opportunity of *burking* his popularity, and left no art of malice untried to effect his ruin; but the furnace they had heated for him proved their own destruction: contempt for such baseness, and pity for the object of their hatred, doubled Dr. Knox's pupils next year, and ever since, he has been at the head of the Anatomical School of Edinburgh; over which may he long preside!

Your obedient Servant,

EDINENSIS.

RETENTION OF URINE FROM AMPUTATION OF THE PENIS.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—I have perused with pleasure your first numbers, and congratulate the medical service on the appearance of a work which has long been a desideratum, and which, from the manner in which it is conducted, must tend greatly to the advancement of Medical Science.

In such an extensive field for medical practice, as the vast territories of India, many interesting and instructive cases must occur, and it is to be hoped, that through you, our professional brethren will give us the benefit of their experience.

I send you the enclosed case, that I may not be wanting in my mite, and will continue to do so whenever I meet with any thing of the least interest to Medical Science.

I am, Gentlemen,

Your obedient Servant,

P. STUART.

Baroda, August 10, 1834.

A Fakeer, a native of Marwar, as a public demonstration of chastity, and a proof of his devotion cut off his penis close to the pubis. The above is his own account. By others, however, it was shrewdly hinted, that he had been thus mutilated, as a punishment, for disturbing with little *religious* devotion, and less chastity, the domestic happiness of his neighbours. The latter is the most natural account, and were I to draw conclusions from appearances I would say he looked more graceless than godly.

Whatever the cause may have been it is immaterial to the case. The immediate effects were severe inflammation of the neighbouring parts and gradual diminution of the urinary canal. About six weeks after the removal of the penis; when the difficulty of voiding his urine had become urgent, and the surgical skill of his village, could afford him no relief, he came to seek assistance in Camp. When I first saw him on the evening of the 4th of May last, after a journey of 15 miles on foot, he was much fatigued and feverish, and complained of pain and irritation about the *anus* and lower part of the abdomen. The wound left by the removal of the penis was healed, and presented an irregular knobby surface, without any *perceptible* opening for the urine to escape. On desiring him to void his urine, he pressed with one hand above the pubis, and drew the other along the perineum, forcing out, with each stroke with his hand, the least possible quantity of urine. In this way he had relieved himself for several days. By watching narrowly I was able to discover a very small opening through which the urine oozed, and attempted to introduce a fine probe, but only succeeded to the extent of about one-third of an inch. I ordered him castor oil, and warm fomentations, directing him at the same time to continue his efforts in voiding as much urine as possible till morning, when something would be done for him. The following morning I saw him in company with Assistant Surgeon Stowell, he was less excited and feverish, but complained of great pain when pressed on the abdomen. It being impossible to ascertain the extent of the stricture (the flow of urine not being perceptible in the perineum) we determined on cutting down on the urethra as low as possible, and be guided by circumstances in completing the operation. The patient being placed as in the operation for stone, I commenced by making an incision along the raphé, through the skin, and cellular substance. On cutting through the ejaculator and corpus spongiosum into the urethra, an inch below the scrotum, it was thickened, and *apparently* impervious. The incisions were continued down to the bulb and a few drops of urine flowed. I then introduced a probe and lengthened the incisions till a full sized catheter easily passed into the bladder. Upwards of a pint of ropy urine was discharged. The catheter was left in the bladder and the wound lightly dressed with

* I may mention, for the information of D. L. R., that this incarnate fiend was *very fond of children*. He used to give the young ideas of the Cow-gate Juvenile hops and lolly-pops; and, of course, was a great favourite with the mamas, but after *the* denouement, they discovered that he had been as it were, fattening up their darlings for the slaughter, D. L. R. will agree with them.

lint dipt in oil. When the urine was drawn off he expressed great relief, and with the aid of an anodyne draught soon fell asleep. He never had any bad symptoms, and at the end of a fortnight, the wound being healed, he was discharged, with directions to introduce a bougie occasionally, to prevent the new orifice from contracting. He retained his urine perfectly, and as the new opening would be sufficient for all future purposes, without the inconvenience of the urine trickling over the scrotum, no attempt was made to open the natural passage.

The result of this case I consider particularly fortunate. Had the urethra been strictured in the membranous part, I doubt whether in such a contracted state, without even the assistance of a probe, as a guide, I should have been able to lay it open, consequently would have been obliged to finish by puncturing the bladder through the *prostate*. In cases of retention of urine from stricture, when it is found impossible to relieve the bladder by ordinary means, would not the most speedy cure be effected by laying open the strictured part and introducing a catheter. Dr. Balingall claims the credit of first curing strictures of the urethra, by cutting down and dividing them through their whole extent, then introducing a catheter and allowing the parts to heal over. In two cases, however, of retention of urine which occurred in his practice, he first punctured the bladder, then cut down on the stricture and introduced a catheter. I am not prepared to say that it is not necessary in some cases to puncture the bladder first. But as a general practice surely the success of cutting down, and dividing the stricture should be tried, before the patient is subjected to an operation, which is always attended with considerable risk.

P. Stuart.

P. S. Since writing the above, the patient returned, and in a woeful tone told me he must be cut again. He had lost his bougies, and the new orifice in consequence contracted, so that he could only void a small thread of urine. The contraction was only at the orifice, and a tapering bougie was with little difficulty forced into the bladder. I have lately had an opportunity of seeing some cases similar to those mentioned by your Nipaul Correspondents, and shall send you an account of them soon.

Baroda, August 10, 1834.

CHANGE OF AIR IN FEVERS.

TO THE EDITORS OF THE INDIA JOURNAL OF MEDICAL SCIENCE.

Gentlemen,—Some time ago, I drew up a paper on change of air in Fever cases, with the intention of publishing it in some one of the journals, but circumstances prevented me; however, as I feel convinced that the subject is important, I shall as briefly as possible state my opinion, trusting if you agree with me that you will insert it in your excellent periodical.

Your's obediently,

A. Burn.

REMARKS ON CHANGE OF AIR AS A REMEDY IN BAD CASES OF FEVER.

During some seasons of the year, Intermittent Fever, generally of a mild form, is very common here, as will be seen from the list of Returns of "Fever Cases," here inserted, from a Detachment of 108 Native Troops at this place.

Akulkote.	
1833. March.	6
April.	5
May.	2
June.	5
July.	9
August.	12
September.	13
October.	15
November.	12
December.	7
1834. January.	2
February.	2
Total.	90

Number of Cases admitted monthly,

Of these cases one only proved fatal, after having been in Hospital from the 19th of July to the 11th of September, during which time repeated relapses occurred, and death took place apparently from extreme weakness. Cases of this sort are not uncommon among the population of this district, and it was from observing the effect of change of air on such cases that I was led to believe that in some acute diseases it might be attended with less danger than commonly is thought consistent with the *weakened state* of a patient.

To what other source are we to attribute the recovery, every day occurring

of many natives from severe attacks of Fever, Dysentery, and Cholera, when, as a last resource, the friends carry them off to implore at the feet of the gods, that aid which they suppose distance renders less efficacious.

For the last three years, I have used change of air with the happiest results, not only in those cases where the weakened state of the mind and body has become extreme from repeated attacks and relapses of fever, but in acute cases, where severe cerebral affection early appears, and in which we can have but small hope, if the first few days have been neglected, of staying the disease by medicine.

I might detail cases, both of Europeans and Natives, from the results of which, compared with others, I think I am warranted in believing that I have been able, by change of air, to increase or aid the power of the anti-periodic medicines, and where these are not admissible to moderate the violence of the head symptoms, and thus guide the case to a happy issue.

In all fever cases, the gentle removal in a palankin to a short distance from the place of attack by easy nocturnal marches, is a plan which I think may be trusted to, as a safe and powerful adjunct in the treatment of the fevers of this climate. The care and quiet, with which such removal ought to be attended, will always suggest the best means of obtaining them, and it is curious that even a very short distance is often as powerful as a longer one;—no fears of exposure need be entertained when the patient's bed is well surrounded by curtains. I have seen sleeping in the open air with this simple covering in some cases beneficial.

I am aware that something like this plan of treatment has, by some medical men, often been employed, but its efficacy has never sufficiently been pointed out. And, as my experience in treating the severer forms of fever, has not been great, what I have here stated, I advance with diffidence, urged on by a strong conviction, that it will be found in most cases a safe and for many the best remedy.

A. Burn, M. D.,
Asst. Surg. Bom. Med. Estb.

Akulkote, 30th Sept. 1834.

HOSPITAL REPORTS.

SUMMARY BY MR. RALEIGH, FOR THE MONTH OF OCTOBER, 1834.

Although the rains continued up to the last day of October; in Calcutta, this month was, on the whole, decidedly warmer than the preceding one; during the latter half, the vicissitudes of temperature were also greater, in consequence of the frequent variation of the wind, from south, to easterly, and north-easterly points, accompanied by heavy fall of rain. As is generally the case, this changeable state of climate produced its deleterious effects on those who were much exposed to its influence, and forced into hospital a large number of patients, principally from the shipping departments. Among the admissions, were several bad cases of Fever, of the congestive, or remittent type, in a few of which, a jaundiced condition of the system, and vomiting of dark fluid, were amongst the earlier symptoms. Occasional cases of Cholera occurred, especially about the middle, and latter part of the month, about which period, three or four patients in the General Hospital, under treatment for other complaints, and on moderated diet, were attacked; several cases of an apoplectic character, were also received. Among the Surgical cases, the only one which I remember, as worth noticing, was an injury of the hand, caused by the explosion of a gun, whilst the man had his hand held over the muzzle. The fore, second, and part of the third fingers, were blown away, together with much of the soft parts of the hand; he was admitted the General Hospital, a week after the occurrence of the accident, when the integuments, and surface of the wound, presented a very unfavorable aspect. With a hope of preserving the thumb and little finger, I performed partial amputation of the hand, by removing the metacarpal bones of the fore, second, and third fingers, at their carpal articulations; as the patient was not a very good subject, of Indo-British-birth, no effort was made on the part of nature, to repair the loss sustained. After a time, suppuration commenced in the fore arm, and I was obliged to amputate the upper arm just below the shoulder joint—the case is now proceeding very favourably, and shall be detailed in a future report.

Cholera.—H. B., Pauper Sailor.—Stated that, thirty hours previous to his being brought to hospital, he was attacked with symptoms of Cholera; which had continued unabated.

Oct. 23d, 10 o'clock A. M.—At this time, he has a blue, and anxious expression of countenance, the features puckered, the extremities cold, and integument of the hands shrivelled and wet, the trunk warm, and suffused with perspiration, pulse at wrist, feeble, but distinct in its stroke, and frequent; he complains of internal spasmodic pain of the belly, and has frequent cramp in the feet, and legs, constant purging of whitish fluid, and occasional vomiting.

Mustard Sinapism over the whole belly.

Friction of the limbs, &c. &c.

R. Calomel, gr. x.—Ext. Col. Comp. gr. x.—Ol. Carui, gtt. iij.—immediately.

2 o'clock.—Much in the same state, excepting that he has had no vomiting.—Pills repeated.

6 o'clock.—Stools less frequent, of darker color, not so watery—he feels better and has had no cramp lately.

R. Calomel, gr. xv.—Ol. Carui, gtt. iij.—at 8 o'clock P. M.

24th. — Countenance improved — pulse soft, and more full.—Skin more dry, and warm, only four stools in the night, of brown colour.

R. Calomel, gr. x.—Ext. Colocynth C. gr. vi.—Ol. Carui, gtt. ij.—every 4 hours—*warm sago*, occasionally.

P. M.—Only one stool during the day, and in all respects improving.

25th.—During the night, five fluid fœcal stools, countenance more natural —Omit med. through the day.

P. M.—Doing well—Repeat the pills at bed time.

26th.—Five or six fluid fœcal stools, of natural colour—Cholera symptoms have all left him, excepting the livid cast of countenance, which is gradually disappearing.

Pil. Hydrag. gr. iv—Ext. Cinchonæ, gr. v. ter die.—*Milk, sago, and soup, as diet.*

28th.—Gums sore, stools continue rather frequent, and of thin consistence ; patient weakly.

R. Ext. Cinchonæ. gr. v.—G. Opii. gr. ss.—ter die.

31st.—Nearly well—two or three stools, in the twenty-four hours.

3d Nov.—Quite recovered.

Case 2d.—J. C., a stout man, who had been for some time in confinement, and consequently on very sparing diet, was admitted Hospital on the 28th of October, with slight feverish symptoms, of which he had nearly recovered. On the morning of the 1st Nov., he took Pulv. Jalapæ Comp. 3i—which acted two or three times during the early part of the day ; at one o'clock, he was seized with all the symptoms of cholera, and died at about four o'clock the same afternoon.

Case 3d.—Serjeant K., admitted Hospital on the 13th of October, in consequence of having received an injury of the hand. Was attacked on the 24th, at 9 o'clock P. M., with very frequent watery purging of whitish color.—Vomiting and cramps of the legs, and feet. His countenance was anxious, and pulse rapid, and feeble.

Calomel gr. x.—Ext. Col. C. gr. vi.—Ol. Carui gtt. iij—directly.

12 o'clock.—Symptoms continuing.

R. Calomel and Colocynth āā. gr. x—G. Opii. gr. i—were given.

25th.—During the night, he had five thicker evacuations of pale color, and his countenance was more comfortable, cholera symptoms had left him.

Took Pil. Hydrarg gr. x. ter die, and Calomel and Colocynth āā. gr. vi. at bed time.

26th.—Five stools, of fœcal matter, very fœtid.

Ol. Ricini. 3i—which operated three or four times, he subsequently took a mild purgative of a morning, and a little blue pill and Colocynth at night, for a few days, when he was restored to health.

Apoplexy.—On the evening of the 22d of October, J. R., æt. about 30, a sailor, was sent to the Hospital, in a state of insensibility, unaccompanied by any report of his case. At the time of admission, the surface of his body was moderately warm, head very hot, pulse rapid, and feeble, pupils dilated, the breathing hurried, but not stertorous.

The head was ordered to be shaved, and a mussuck of cold water to be poured over it, every hour—and kept cold.

Blister to the back of the neck—Calomel gr. x—Ol. Croton gtt. iij—immediately, and Purgative Injection.

Midnight—no stool—Injection and Pills repeated.

23d, 6 A. M —During the night, he had two or three epileptic fits, he continues perfectly comatose, the pupils dilated, and breathing rather snoring, pulse 90, and feeble, no evacuation, although he swallowed the medicine, which was passed into his throat.

Inject. Purg. and Ol. Croton gtt. iij. immediately—Cont. the cold to the head.

10 o'clock A. M.—No evacuation from the bowels.

Repeat the Oil of Croton and Injections now, and at 2 P. M. if not purged.

4 P. M.—No stool, continues quite insensible.

R. Ext. Col. Comp. gr. x—Calomel gr. x. —Ol. Croton gtt. ij.

8 P. M.—No stool, the last prescribed pills repeated, and cold effusion over the head.

11, Night.—The medicine has commenced to operate, symptoms unchanged.

24th.—This morning, he appears better, he is restless, and irritable, less comatose, and when roused, partially sensible, he has passed four or five dark stools in the night. Pulse still very feeble.

Pulv. Scammon. Comp. (P. L.) 3i—Cont. the cold effusion.

P. M.—Improving—Bowels freely purging.

25th.—This morning he is sufficiently sensible to complain of pain of his head, the

pupils less dilated, but indolent. The pulse small, and feeble, skin cool, does not appear to have had an evacuation from the bowels during the night.

Inject. Purg. — R. Ol. Ricini. ℥i—Ol. Terebinth : ℥ss—Stat. Sumend.—viij leeches to the temples.

P. M.—Only one stool to-day.

Calomel, gr. x—Ext. Col. Comp. gr.. x—Ol. Croton, gtt. i—Hor Som. Sumend.

26th.—This morning he is perfectly sensible, complains of slight head-ache, and general soreness of the body, only one stool during the night.

Repeat the Oils, and Injection.

27th.—His intellects perfectly restored, bowels freely operated on—he still feels heavy at the head, the pupils of tolerably natural size, but sluggish—from this date up to the 10th November, a few leeches were applied to the temples, and a daily purgative administered, when he was perfectly well.

Case 2d. Apoplexy.—Smith, a robust sailor, apparently of about 35 years of age, was brought to hospital at 10 o'clock on the morning of the 2d of November—the only account obtainable from those who accompanied him, was that "he had fallen down insensible on the deck of the vessel, at six o'clock in the morning, since which hour, he had had several convulsive fits."

10 o'clock, A. M.—The patient is perfectly insensible, whether to noise, or feeling, his pupils completely contracted—inspiration snoring, and expiration puffing—pulse 64—rather hard, but not full—abdomen distended.

V. S. ad. ℥xxxviij, immediately on the arm being tied up, he had a terrific fit of convulsions, the jaws were forced wide open, and the tongue seemed to stand erect in the mouth, in a trembling state; the trunk was drawn backwards, and the muscles of the extremities were perfectly rigid, and in a state of tremor: this lasted for about five minutes, when he became quiet, and the pulse, which immediately after the fit, was small, and above 100, fell to 70, and became soft, and regular, within ten minutes.

The head shaved and cold applied, and a mussuck of cold water, poured over the head, every hour.

Purgative Injection—R. Calomel, gr. xij—Ext. Colocynth C. gr. x—Ol. Croton, gtt. ij—passed down the throat.

12 o'clock.—Rejected the pills, and does not appear capable of swallowing.

Ol. Croton, gtt. iv. passed into the throat.

R. Ext. Colocynth C. ℥i.—Aquœ. lbi. as an enema.

2 o'clock.—Since last report, he has had another fit, but his attendants say, not so violent a one, as the former, pulse 70, feeble, the medicine commencing to affect the bowels.

5 o'clock.—Six purging stools since two o'clock—had one slight fit—he appears to be much less comatose.

9 o'clock.—Pulse 90, small and soft, had another fit, and continues very dull, no stool.

Repeat the Croton Oil, and Injection.

3d.—During the night, he has had one fit, this morning he is in a half sensible state, looks about him when roused, but gives no answer to questions; no stool in the night, pulse 90, rather hard, pupils are less contracted, but quite insensible to the stimulus of light.

V. S. to ℥xiv. lowered the pulse very much.

Ol. Croton gtt. iij. passed down the throat, and Colocynth injection repeated, now, and again at noon.

4 o'clock P. M.—Passed four stools, appears more insensible than in the morning, breathing, snoring, and puffing, pulse feeble 90—head cool, one slight fit. Blister over the head, and down the neck.

Ol. Croton gtt. ij. at six P. M.

10 o'clock.—Has had three stools during the evening, and he is now sufficiently sensible to recognize questions, when asked where he suffers pain, he places his hand on his head, and abdomen; no fit during the evening. Mustard Poultice over the belly.

Repeat the Croton Oil gtt. ij. and—Purgative Injection.

4th.—He has had three fits during the night, and is again, perfectly comatose, cannot be roused, pupils of natural size, but stationary, pulse 90 and very small; two stools in the night.

Inject. Purg. and Ol. Croton gtt. ij repeated, and cold effusion continued.

Died during the morning in a fit.

Post-Mortem Examination. — On removing the dura mater, it was ascertained that, between it, and the membrane beneath, extravasation of blood, had taken place, so as to cover the whole external surface of the right hemisphere, to the thickness of about a rupee—(irregularly), on wiping off this half coagulated blood, a trunk of one of the veins, ramifying over the surface of the brain, to the right side of the vertex, was observed to have bursted. Its calibre was now empty, and its ruptured mouth, was closed by a coagulum, of the size of a barley corn; on removing the right hemisphere, the surface formed by the orbitar plane, tentorium, &c., was covered by a thick layer of coagulum, some fluid blood had also escaped over the cere-

bellum, and made its way to the base of the skull. The substance of the brain was natural, and the extravasation, was confined to the right side of the head.

Case of Suppression of the Secretion of Bile.—J. M., æt. about 35, admitted hospital on the 13th of August last, a seaman, of pale unhealthy complexion—stated that, he had been ill of fever for more than six weeks, and during the past ten days had had purging on him, the evacuations being of a very light color—he complained of pain at the right lumbar region, increased on pressure over the kidney, his pulse was quick, skin hot, and dry, the belly distended, and the spleen was felt to be enlarged.

Leeches were applied, and he took blue Pill and Ipecacuana, with an occasional laxative, for about ten days; when his symptoms were relieved. But he continued much out of health, and on the 12th of Sept., he is reported to have scanty evacuations, of fœces, and urine; the extremities to be œdematous, and the abdomen full, and feeling as if it contained fluid, the spleen continuing enlarged, and the patient very weakly.

Counter irritation over the spleen—and Diuretic Purgatives, were prescribed.

Under this treatment, the dropsical symptoms subsided, but the spleen remained large, and hard.

Tinct. Iodyne gtt. x. ter in die—P. Jalapæ Com ℥i. Om. Mane.—were ordered.

Sept. 16th.—The spleen appeared somewhat diminished in size, by this date, but his general health continued very delicate, and his skin, and conjunctivæ, were assuming a yellow tinge, the bowels costive, and stools of very pale, or of leaden colour.

Purgatives—and a drink of Nitric Acid.

The bowels became so very indolent, as to require the most active purgatives. The Nitric Acid bath, and blisters, over the liver, were resorted to, without exciting a secretion of bile, the skin became more and more yellow, and the stools continued of unnatural colour, and very fœtid.

October 1st.—The skin, and conjunctivæ, had become of dark orange colour, and was now assuming a very dark, or bluish tint, the bowels torpid, urine scanty, and high coloured, tinging any thing it came in contact with, bright yellow.

A constant action of diuretic purgatives, and counter-irritation over the liver, was maintained, and the use of the Nitric Acid bath persisted in.

4th.—In the night he had a severe fit of convulsions, fell into a state of coma, and died during the morning.

On inspection after death—every tissue of the body, naturally of a pale colour, such as the skin, fatty, and cellular structures, the intestines, and membranes generally; were now of a bright orange hue; the fluids also, partook of this tinge. The membranes of the brain were of deep yellow colour, as well as some accumulation of fluid, which had taken place between them, over the hemispheres, and within the ventricles; but the substance of the brain, retained its natural appearance. The heart, was hypertrophized, and soft, and the pericardium, contained much fluid, of amber colour. The lungs, and the trunks of the great vessels, were also quite yellow. A considerable collection of yellow fluid, was found in the abdomen, the intestines were yellow, and opaque, on cutting open the stomach, and intestines, the mucous coat presented a dirty leaden aspect, the spleen was large, engorged, and of soft consistence, the liver was of natural size, of a dark leaden colour, and inelastic feel, like putty. I made a very minute dissection of the gall bladder, and its ducts, the coats of the former were very much thickened, its internal membrane of chocolate colour, it contained only a small quantity of tenacious green mucous, which adhered closely to the surface of the lining, not a drop of bile existed there; the ducts of the liver, the gall bladder, and the common duct, were all pervious, and admitted of the free passage of fluid, into the duodenum.

Cataract.—Mr. S., æt. 36 years, officer of a ship, had a capsulo lenticular cataract in the left eye, occasioned by an attack of inflammation, three years since. The lens appeared of rather soft consistence. The retina, now seemed in a state favourable to the success of an operation, and the motions of the iris were active: on the 20th August, I operated on him, by cutting up the lens and bringing a considerable portion of it into the anterior chamber. The after-treatment consisted in the application of leeches, purgatives, &c.—The process of solution proceeded gradually, and by the 15th of October the whole lens, and capsule, had become absorbed. He was discharged Hospital on the 3d Nov. with a perfectly clear pupil, and good vision, and did not appear to experience much inconvenience from the difference which probably existed, in the axis of vision, of the two eyes.*

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* Although cataract is of great prevalence among the natives of India, particularly the lower grades of Natives, and Portuguese, who are much exposed to the intense rays of the sun, and frequently to the miseries of poverty, it is not by any means a common disease among Europeans. During six years that I have had one half of the patients of

Case of Inflammation of the Penis.—R. B., æt. 35—has had gonorrhœa for ten days, six days since, the body of the penis began to be very painful, and to swell, and up to this time, the 23d of August, the inflammation has increased,—at present the penis is of more than twice its natural size, very hot, red, and acutely painful, and tender; thick yellow gonorrhœal discharge, issues from the urethra, his bowels are costive, but he has no constitutional febrile symptoms.

xxx Leeches to the perineum, and fomentations—R. Pulv. Jalapæ C. ℥i immediately—*spoon diet.*

24th.—Inflammation of the penis very acute, penis much swollen, stools scanty.

Bleeding to faintness—Rept. P. Jalap. C. ℥i—R. Magnes. Sulph. ℥ij—Antim. Tart. gr. ss—Aquæ, ℥ij—every two hours—Fomentations.

25th.—Inflammation of the penis, continues unabated, swelling of the part enormous, bowels open.

Bleeding repeated—Pulv. Purg : and Antimonial Solution.

26th.—Inflammation somewhat abated.

xij Leeches to the body of the penis, Medicines and Fomentations repeated.

27th.—Much better.

xij Leeches to the penis, and the same medicines.

28th.—The swelling subsiding—and pain much lessened, very faint, and weak—*sago diet.*

Fomentations, and Medicine continued, Apply a poultice over the penis at bed time.

29th.—Considerably better, bowels freely open—apply a poultice three times in the day, and continue the Antimonial Solution.

Sept. 2d.—The swelling of the penis has subsided, the gonorrhœal discharge continues copious.

Cubebs and Capaivæ Mixture, ℥iss. three times in the day.

8th.—The gonorrhœal discharge has entirely ceased, and the penis has recovered its natural condition.

Case 2d. Inflammation of the Penis.—Mr. D——, æt. 30—was admitted into hospital on the 3d of July, labouring under inflammation of the penis, with extensive swelling of the part, the consequence of venereal ulceration, on the inside of the prepuce, which had existed about a fortnight, an extreme state of phymosis prevailed, and on the right side of the body of the penis, at the middle, a dark spot of the size of a rupee, was observable. No constitutional symptoms.

xii Leeches to the body of the penis, followed by poultices.

Pulv. Jalap. C. ℥i.—Saline Antimonial Solution, every two hours.

4th.—Has been freely purged, the penis in the same state as yesterday.

xij. Leeches and Poultices—A Mercurial Purgative and Antimonial Solution.

5th.—The penis disposed to slough, at the dark spot the pain is diminished, but swelling continues very considerable, he complains of faintness, and has had no sleep for many nights. Bowels freely purged, skin relaxed, and pulse feeble.

Solution, and Poultices, continued, through the day, and an opiate, administered at bed time.

6th.—Had a good night, the side of the penis in a sloughing state, and the body of it generally, still much swelled, and painful; no stool during the night, or morning.

R. Calomel, gr. v.—P. Jalap. Comp. ℥i. now—Poultice four times in the day, and Anodyne at bed time.

7th.—A portion of the right side of the body of the penis, about two and a half inches long, and one and a half inch broad, has sloughed off, leaving a foul ragged surface, and edges, the sore disposed to spread.

The surface, and edges of the wound, smeared with, pure Nitric Acid, Poultice three times in the day.

R. Pil. Hydrarg. gr. v.—G. Opii. gr. ss. ter in die—*Diet—Milk, and Sago.*

8th.—Had a composed night, Bowels open—Medicine and Poultices continued.

9th.—The affected parts look better, a red line of demarcation has formed at a short distance round the edge of the sore.

Remedies continued.

12th.—Improvement has been taking place daily, since last report, under the same treatment, The foul surface, and edges of the sore, have been cast off, and are now granulating.

Mild Purge, occasionally—Medicine continued.

Aug. 1st.—By this date the sore had healed, and the swelling of the penis entirely subsided. But a considerable portion of the body of the penis, on the right side, having been destroyed, together with the urethra ; which canal now opened at about the middle of the body of the penis ; an awkwardly shaped, and inconvenient

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the General Hospital under my charge, and conducted the Branch Eye Infirmary in Calcutta ; I have not seen above two dozen cases of Cataract in *Europeans,* whilst in the same period, I have operated on several hundred Native subjects. India is a good *school,* and affords ample opportunity for a man's perfecting himself in the different operations on the Eye, probably with much advantage to his patients, but little to himself in a pecuniary point of view, derivable from private practice.

portion of the substance of the penis, with the glans at the extremity, remained. This, I now amputated, making a circular incision, and retracting the skin of the penis, so as to form a prepuce, to cover the stump. The patient was perfectly cured by the end of the month, and left the Hospital, with a penis, although only of one-half its original length, in other respects, having a tolerably natural appearance.

Abscess.—Miss R., a delicate girl, æt. 15, had been for five weeks the subject of fever, previous to her being sent to the General Hospital, on the 14th of Aug. At which time she was in a state of great irritability, much emaciated, and very feeble. Had a quick, small pulse, white tongue, hectic flush of the cheek, relaxed skin, with occasional paroxysms of fever; the back of the right thigh, at the upper part, was much inflamed, very hard, and exquisitely tender.

iv Leeches and Poultice were applied to the thigh.

R. Pil. Hydrarg. Pil. Rhei. Comp. āā. gr. v—R. Tinct. Hyosciam. gtt. xl. Mist. Camph. ℥i—given at bed time.

15th.—Slept well, bowels acted on two or three times.

iv Leeches and Poultice to the thigh—R. Inf. Cinchonhæ ℥ij—Acid Sulph. Dil. gtt. x—ter die sumend.—*diet, milk and sago.*

18th.—Up to this date, the same remedies were prescribed.

19th.—Inflammation commencing, at the upper and back part of the left thigh, constitutional symptoms, not improved.

iv Leeches to the left, and two to the right thigh—Poultices and Medicine contd.

22d.—The same remedies have been made use of, up to this date; suppuration has commenced in the right thigh; left thigh still inflamed—the girl is in a very irritable state, bowels regular.

The right thigh Poulticed—ij Leeches to the left thigh, and Poultices, and Medicine continued.

26th.—Sense of fluctuation of matter, rather deeply seated, at the back of the right thigh, the patient in a very nervous state, left thigh less inflamed.

An incision made into the abscess, at the back of the right thigh, and ℥vi of greenish pus evacuated.

Poultices to each thigh.

R. Quinine S. gr. i—Inf. Cinchona ℥iss. ter die.

30th.—The discharge of matter from the Abscess, has been, and continues to be, considerable, the pain relieved, and the patient is more composed, less irritable, and nervous.

Cont. Med.—*Diet, chicken soup, milk and sago.*

5th.—Has improved up to this day, when diarrhœa has come on, the stools frequent, and watery, griping and tenesmus prevails, the patient very feeble, and nervous.

R. Pulv. Ipeccac. Comp. gr. vi. with Mist. Cretœ ℥iss. Kino. Pulv. gr. x. Tinct. Opii. gtt. v. every four hours—*Milk diet, sago.*

6th.—Better, stools less frequent.

8th.—Diarrhœa has ceased, bowels not acted on for two days.

Ol. Ricini. ℥ss. operated 3 or 4 times—Repeat the Quinine, and *soup and sago diet.*

15th.—The Abscess has continued to discharge, the pus becoming more healthy, and the girl's health somewhat improving.

Tonics, and diet continued.

21st.—Inflammation has again commenced in the right thigh, just above the seat of the first abscess.

iij Leeches to the upper part of the thigh, where inflamed, and Poultices.

22d.—Thigh less inflamed.

iij Leeches, Poultices and Med. continued.

23d.—Better.

Poultices and Med. as before.

26th.—The abscess has closed, and the inflammation at the back of the thigh, has entirely subsided, appetite returning, and her general health improving.—*Diet, kid, beer,* lbi.

Cont. Quinine—Apply a bandage round the thigh.

Oct. 1st.—General health has much improved.

Medicine and diet continued, an occasional laxitive.

By the end of the month, she had recovered good health, and has become quite stout, and strong.

Case of "Barbadoes," or "Cochin Leg" —Amputation successful.

About three and half years since, a native man of about 22 or 23 years of age, of athletic frame, but much reduced in flesh by a copious drain from his sores, which had been constant during the previous six months; and whose general health was in consequence suffering very considerably, and assuming a cachectic character, applied to me for relief, and presented in his left lower extremity, the most enormous example of that disease commonly, although perhaps, inappropriately termed "Cochin," or "Barbadoes leg," which I have ever witnessed. The integuments just above the knee, felt more thick than natural, and from this joint downwards, the limb enlarged, the cuticle becoming gradually more coarse as it approached the upper part of the calf, where it became quite Ichthyotic, and at

the lower part of the limb, formed thick hard scales, or crusts; from the integuments admitting of less distention immediately round the ankle; a sulcus was occasioned between the enormously swoln leg, and dorsum of the foot, the opposing surfaces of which, as well as nearly the whole circumference of the leg, just above the ancle, were the seat of deep ulceration, from which issued a fœtid sanious discharge. The toes much enlarged, were also ulcerated at the bend of the joints.

As the only means of saving life, I recommended removal of the limb, to which the man readily consented, and as a matter of convenience, permission having been obtained for his admission into the General Hospital, in a situation distinct from the patients proper to the institution, (all of whom are Europeans, or of European extraction) after a few days rest, I amputated the limb, somewhat higher than the middle of the thigh, above which situation, no disease was detectable, the glands at the groin, scrotum, &c. &c., being unaffected. The stump healed rapidly, by first intention; the patient's general health was perfectly restored, and I frequently now see him in the streets of Calcutta, a strong, healthy, looking fellow, and free from any disposition to a return of the disease.

Dissection of the Limb, immediately after Amputation.

The integuments, for a short way above, and covering the knee, were more thick, and loose, than common; immediately below this joint they gradually thickened, became hard, and about the lower half of the leg almost of horny consistence, the cuticle affording an example of Ichthyosis, in its extreme form. An incision through the skin, and cellular tissue, gave exit to a considerable quantity of clear fluid, of amber colour, from the divided cells; and a section of these superficial structures, presented an appearance, somewhat similar to a longitudinal slice of a large, full ripe, cucumber, only in a magnified degree, the outer surface rough, (forming irregular scales, and crusts) then, the enormously thickened cutis, in some parts near half an inch thick, within which, the cellular structure, composing large cells, alternately filled with yellow fatty, and a transparent gelatinous and fluid matter; this reticulated mass, more dense, and consistent on the outer, than on the surface in connexion with the fascia of the leg, was of that milky, or semi-opaque appearance, which delicate serous membranes are observed to assume, after inflammation. The branches of the saphenæ veins, externally, appeared perfectly healthy, and from being somewhat on the stretch, and ramifying through a half fluid, and semi-transparent consistence, had an unusually clear appearance, and exhibited thro' their coats, here, and there, unconnected particles of blood, in dark patches; their interior surface was also perfectly exempt from any vestige of disease. Of lymphatic vessels, I saw none, and as the glands at the ham were imbedded in a large quantity of fat, and cellular structure, they could not be distinctly made out, and were certainly not conspicuously large. The diseased appearances were confined to the cutaneous; and sub-cutaneous cellular structures, *external to the fascia*, covering the muscles of the extremity; which being removed, exposed the muscles; of a dark red color; soft, and much wasted, from the inactive state in which they had remained for a very long period. The anterior, and posterior, tibial arteries, and veins; as also the popliteal, were in a perfectly natural condition—there were no divisions of the swelling, it was general, and uninterrupted; and excepting the difference of thickness, and hardness of the *skin;* its consistence was uniform.

The idea suggested to my mind, by this dissection, was, that, the disease was seated in the skin, and subcutaneous cellular tissue superficial to the fascia common to, and covering the muscles of the limb, probably *originating* in some increased action of the lymphatics of the parts involved, and that the blood vessels, at least those carrying red blood, were not implicated in the affection. In some cases that have come under my treatment, the phenomena of the complaint, have appeared consistent with this opinion.*

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* Notwithstanding that, the detail which I have given of the dissection, and the inferences which I have considered deducible from the morbid appearances, are perfectly at variance with;—I have good reason to think that, this is the case of dissection "of a leg affected with elephantiasis," described at page 191, of the first part, of the seventh volume, of the Transactions of the Medical and Physical Society, of Calcutta. And in the same paper (I believe) published under the title of an "Essay," by Dr. Wise, of Hoogbly, with a view of supporting an hypothesis, of the disease being inflammation of the veins: although he has omitted to acknowledge it, as occurring in my practice. The discrepancy in our descriptions, of the appearances presented in the more delicate tissues, may be attributable to the circumstance of Dr. W. not having seen the limb, until more than twenty-four hours after amputation, when it had been exposed in a dissected, and mutilated state,

FRACTURES.—One case of Fracture of the Femur, through the middle of the bone, treated on Mr. Amesbury's plan—and a case of fracture of the neck of the Humerus, were discharged as satisfactory cures.

CASE OF HARE LIP, COMPLICATED WITH PROTRUDING PALATE,—OPERATION.

Miss M. F——r, a little girl of five years of age, was placed under my care at the General Hospital, for the purpose of undergoing an operation for hare lip, complicated with protrusion of the palate, and alveolar processes, with which deformity she was born.

The separation between the edges of the lip, was wide, as on either side, the lip did not advance beyond the root of the alœ of the nose, which being somewhat spread out, admitted an exposure of the cuspidati, or eye teeth. The margins of the fissure were rounded, and of the same appearance as the natural lip. That portion of the alveolar processes, properly occupied by the four upper incisor teeth, together with a triangular portion of the hard palate, was deficient, at the roof of the mouth, which occasioned a pyramidal shaped cleft in the bony palate, the apex of which, was situated about one inch posterior to the sockets of the cuspidati teeth, and caused a communication between the nose and mouth. From the apex of the cleft in the palate, the septum of the nose was wanting, but from the posterior part, of the nasal portion of the superior maxillary bone, and vomer, from above the apex of the separation in the hard palate; grew a bony mass, covered with soft spongy parts, corresponding with the gum, which advanced between the fissure in the lip, and protrnded to a line, even with the point of the nose; at the extremity of this tumour was exposed, one full sized incisor tooth. The column, or soft septum of the nose, not connected with this bony protrusion, was carried before it, and constituted a *second* tumour, of oblong shape, which turned up over, and covered the point of the nose. The deformity was truly hideous, and rendered an otherwise pretty featured child, a very repulsive object.

OPERATION—(Performed on the 1st February 1834.)—The first step of the operation, consisted in dividing with a scalpel, the soft substance eovering the bony protrusion, and cutting off the tumour, even with the lateral alveolar processes, by means of a pair of large bone nippers. Considerable hemorrhage ensued; on the cessation of which, I pared the edges of the lip, by passing a long delicate bistoury

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to the atmosphere, for eighteen or twenty hours; in which period, in a climate like Bengal, decomposition has usually made such progress, as to change the complexion of parts, at least. And the inaccuracy of Dr. Wise's account of those parts, which could not have undergone any alteration of character, may be accounted for, by consideration of the casual, and imperfect examination which Dr. W. could but have had an opportunity of making, of the diseased limb, during a visit to the hospital: on the day after the operation had been performed, and the extremity disseeted. I shall point out a few of Dr. Wise's mistakes, placing them on one side of a line, and my remarks on the opposite.

DR. WISE'S STATEMENT.	MR. RALEIGH'S STATEMENT.
Transactions of the Medical and Physical Society of Calcutta, Part 1st of Vol. VII—page 191—Dr. Wise states—(at line 11 from the bottom of the page) "on dividing the largest portion of one of these tumours to the bone, the general state of the tissues was seen. The muscles were large, round, and red, like those of a healthy, strong individual."	There were *no* tumours: the disease constituted one general œdematous condition of the leg, and foot: and the morbid enlargement of parts, was confined to the tissues *superficial to the fascia*, covering the muscles of the extremity. The muscles were of very dark eolour; and much wasted, and soft, as is common: after a long state of inactivity, in this instance they also appeared flattened from the degree of compression they had probably been subjected to, by swelling of the encircling integuments.
Page 192, line 8 from top of the page—"The arteries were smaller than natural, the veins thickened in their tunics, with numerous enlarged branehes. The lymphatic vessels were empty, and appeared healthy, but their glands were somewhat enlarged, hard, and red."	— The arteries, and veins, whether superficial or deep seated, appeared in a perfectly natural eondition; of lymphatie vessels. I could distinguish none, nor could I detect the glands at the ham, (amongst the unnatural quantity of cellular tissue, and fat, which had accumulated there:) during an examination of several hours; from which circumstanee, I conelude, they could not have been very conspicuous.

through its substance, at the root of the alæ of the nose, and cutting down to the mouth. Which part of the operation was also followed by copious bleeding; subsequently, I pared the tip, and under part of the everted soft septum.

The pared edges of the lip were now brought into apposition, by passing two silk sutures through, and including a thick portion of the lip, the red margin being connected by a needle, round the extremities of which silk was twisted, and thus the corresponding portions of the previously separated upper lip, were very exactly adjusted. The column of the nose was next brought down to its natural situation, and retained in that position, by passing a needle through the left ala of the nose, carrying it through the septum, and through the right ala, and these several parts were fixed at what appeared a natural distance from each other, by plugging the nostrils, and twisting silk round the extremities of the needle. A light dressing, calculated to prevent the parts from being torn asunder was applied. As the little patient cried very frequently, the sutures and needles were not withdrawn until the seventh day after the performance of the operation. At which period, the previously divided lip, and the septum of the nose, had firmly united, and the parts were now held together by bands of adhesive plaster; a roll of lint being placed, so as to press up, and support, the septum of the nose.

By the 26th of February—the marks occasioned by the sutures had become extinct, the site of the former fissure was now only marked by a red line, the septum of the nose retained its position, but continued swelled, and some discharge issued from the divided bony surface, internally. In the course of the next fortnight the parts had perfectly healed, and the patient was discharged Hospital. Three months after the operation, the parts had assumed so natural a condition, that at a short distance, the attention of a casual observer would not have been excited by the child's countenance. On closer examination, a line, extending down the middle, with some contraction of the upper lip, occasioning a pouting appearance of the lower lip, and a somewhat more thick than natural division of the nose, could be remarked; which will, in all probability, gradually become less conspicuous as the child advances in years. The removed tumour, consisted of a portion of the alveolar processes of the upper jaw, about an inch long, and half an inch wide, in which were fixed one central, and two lateral, full-grown incisor teeth; the two latter being hidden in the gum, which covered the bony protrusion.

To my friend, Dr. J. Atkinson, I am indebted for the exact and well executed illustration of the appearance of the little patient, previous to undergoing the operation. The departure of the child from Calcutta, has prevented my obtaining a representation, after the cure had been perfected, which I had hoped to have done.

WALTER RALEIGH,
General Hospital.

SELECTIONS.

ERGOT OF RYE.

Various specific medicines have been recommended at different times, to increase the parturient throes, and facilitate the child's birth; but I believe that the whole of these substances, one only excepted, act upon the womb through the excitement induced in the arterial system. They first stimulate the nervous, then the arterial, and through the medium of those systems, the uterus. Almost the only medicine now used as an uterine excitant, is the ergot of rye; and I have no hesitation in declaring my opinion that its action is specific, and that the uterus is not affected through any disturbance first set up in the arterial system.

The secale cornutum, ergot, or spurred rye, is the produce of disease in that plant, with which one or more of the grains in different ears are simultaneously affected. When attacked with the "spur," the corn first becomes softish and pulpy; and soon bursting from its husk, obtains solidity, and assumes a lengthened form, slightly curved, and pointed at the extremity; its hue is in the first instance red, but it soon changes to a dark violet, or blackish colour. The diseased grain varies much in length, sometimes being perfectly concealed within its husk, at others growing nearly to an inch and a half; its usual length is about an inch, and its general appearance resembles much the spur of the cock. As we obtain the grain, it is dry, and breaks with an irregular fracture, somewhat like a dried almond. On being divided it is seen to consist of a dark cortical and internal bluish white substance; it has no heating qualities, is not unpleasant to the taste, but possesses a slight mawkish flavour. Almost all the grains, and many of the other grasses, are subject to this affection; but it is most usual in rye, and most frequently taken from that grain for medicinal purposes. Wet seasons are particularly favourable to its production; it is sometimes observed in this country, but it is more

common in Switzerland, the south of France, and in north America. The disease destroys the germinating power of those particular seeds which are attacked with it; but does not affect the sound grains in the same ear.

The ergot in fine powder is of a perfect ash colour; and its infusion of a dingy violet. For the facts contained in the following sketch I am principally indebted to a very ingenious pamphlet, published six or seven years since, by the late Dr. Adam Neale.

Although this medicine has only been had recourse to very lately by practitioners, to increase uterine action, the substance has been known to possess deleterious and poisonous qualities for more than 800 years, and has been employed on the continent by female midwives, as a promoter of labour pains, for nearly 150 years. If taken in large quantities, mixed with the healthy grain, as food, it produces giddiness, spasms, and convulsions, on which gangrene and sloughing of the extremities supervene; and to this disease the name of ergotism has been given. Its deleterious effects were first recognised so early as the year 1096, by Sigebert de Gremblour. Wendelin Thelius, a German physician, gave an account also of an epidemic which raged in the kingdom of Hesse in 1596, attributed to this disease being so frequent in the grain. In 1648 and 1649, both Saxony and Sweden became ravaged by a similar epidemic; and twenty years afterwards the same accident took place from the same cause in Blois and Montarges, in France. Nevertheless, it was not till 1670, that the Academie des Sciences de Paris became informed of the singular accidents which had occurred in Cologne, owing to the use of bread there, made with spurred rye. In 1777, Mr. Tessier witnessed the same occurrences also in Cologne, and made numerous observations and experiments, a very interesting account of which he published in the memoirs of the Ancient Royal Society of Medicine. Since that time, in different years, its baneful influence has been more or less remarked in France. And although some observers, as Paulet and Model, have thought that the deaths occurring at those times, in these particular districts, were caused by the great vicissitudes in weather and temperature, rather than by the diseased grain; yet the various experiments of Tessier, on animals removed out of the influence of such exciting causes, fully proved the accidents were attributable to the grain itself.

Like many other valuable medicines, the knowledge of this substance was for many centuries entirely confined to its poisonous qualities; and even those who had studied its history in the closest manner were ignorant that it could boast any other. Of spurred rye, first mentioned for its noxious effects in 1096, no notice occurs of it, as an uterine remedy, till 1688, when R. J. Camerarius stated that in some parts of Germany midwives were in the habit of using it to accelerate parturition. No author, however, mentioned it for this purpose from that time till 1774, when Parmentier in a brief letter to the Editor of the Journal de Physique, made known that it was frequently used by Mad. Depille, a midwife at Chamont, as a child-bed remedy.

This letter merely announced the simple fact; it was to M. Desgranges, an able obstetrical practitioner at Lyons, that we are indebted for rescuing this medicine from the hands of the women. He in 1777, having met with many females who, from a traditionary knowledge, were accustomed to employ it with no little mystery in cases of lingering labour, made some trials with it himself, and published in various journals, at different times, the result of his practice and observations. The American physicians were in the habit of using it many years before it became generally known in England. Both Drs. Davies and Chapman, of Philadelphia, and Drs. Hosack, Bibby, Prexcot, and Stearus, of New York, had employed it repeatedly. It was not, indeed, till the year 1820, that it attracted particular notice in this country, when the attention of the profession was called to it by my friends, Dr. Merriman and Dr. H. Davies, both of whom published some cases in which it had been tried. Since that time it has come into very common use; its powers are almost universally known to the profession; and the medical periodicals of the day teem with the history of cases in which it has been found of service.

On its first introduction, many practitioners—especially those of the old school—received with much distrust the accounts of its virtues, published in the various journals, and elsewhere; at last, however, from the mass of evidence accumulated on the subject, they were forced to admit its powers and efficacy. They then took a different ground,—acknowledged its power, but objected to its use:—it was argued, that if it really possessed such influence over the uterus, that virtue must be obtained at the expense of the system; that it must act on the uterus through the medium of the arterial system; and thus should be classed as a stimulant, and as such must produce dangerous excitement. This, as I have just mentioned, is certainly not

the case,—as all unprejudiced observers agree in testifying; it acts on the uterus entirely through the nervous system, not necessarily exciting the heart and arteries to increased action; its influence is specific, confined to the uterine organs; and the pulse is only secondarily affected.

Another objection was then urged against it; it was said to be dangerous to the child's life, and a number of instances were brought forward in which the children were born dead after the ergot had been exhibited. It was supposed, that the noxious properties of the drug were so great as to have destroyed the child through the mother's system. In most of the cases, however, which were brought forward to determine this fact, the labour had been very lingering, and the child had probably been destroyed, not by any poisonous quality resident in the drug, but by pressure either on the fœtal head, during its passage through the pelvis, or most likely on the funis umbilicalis. I have myself seen many cases in which ergot was given where the children were born alive, and therefore I am warranted in saying that the drug does not necessarily destroy the fœtus. It is by no means impossible, however, that the fœtal body may be greatly affected by drugs received into the mother's system; of which fact I have had an opportunity of seeing some examples, and one of a particularly striking character. A lady, in consequence of suffering severe pains during the last few weeks of pregnancy, was in the habit of taking opium to some considerable extent, until the accession of actual labour; her children, on such occasions, were always expelled in a drowsy, stupid, almost comatose state, which continued some hours after their birth. If opium is sometimes capable of producing such an effect on the fœtus, it is not unreasonable to believe in the possibility of the ergot also being able to produce an injurious influence in a similar manner; and it has happened to me, in four different instances, to witness the death of the fœtus, a few hours after birth, by convulsions, postquam partus prematurus inductus fuerat ope solum secalis cornuti. Three of these cases occurred in the children of the same woman, and in all four the medicine had been given for four or five days in full doses. Thus, then, although I am persuaded the exhibition of the drug does not necessarily injure the child, I am not sure that some ill effects may not possibly arise to it occasionally.

Again, it was objected that the medicine, if commonly introduced into practice, would be dangerous, because it might be given in cases perfectly unfitted for its use; and that contusions, inflammations, sloughings, and lacerations of the uterus, vagina, and perineum, would frequently follow its injudicious employment. It surely is neither sound logic nor fair argument to adduce as an objection against a valuable remedy, the possibility of its abuse. I would ask, is bleeding never liable to be abused; or mercury—that most powerful perhaps of all our internal medicines? Would we discard these remedial means because a bungler might misapply them? Neither is this nor any other medicine to be prescribed at random; we must only have recourse to it in consequence of certain conclusions at which our mind has arrived after a system of severe reasoning.

Still another objection has been taken, stronger and more difficult to refute than any of the former; namely, that if the medicine possesses such powers in increasing the action of the uterus, it must also possess the power of producing uterine action ab initio; and if such were the case, it would be little less than criminal to admit into our pharmacopœia, or into common use, any drug which might be had recourse to, both by unprincipled men and females, to occasion abortion. This argument was answered by a denial; it was said it only possessed the power of increasing the contractions of the uterus when that organ was disposed to act, and did not produce them ab initio. In confirmation, it was declared that in those countries and seasons when ergotisme was prevalent, miscarriages were not more frequent than usual; which must have been the case if ergot produced abortion.

Forsan hæc omnia vera;—egomet ipse tamèn permulta vidi exempla, in quibus partus prematurus inductus fuit—septimo vel octavo graviditatis mense peracto—solo secalis cornutis usu; ovali membranis integris servatis; ore uteri occluso neque digito, neque ullo alio modo ad patefactionem excitato. Quarè hoc medicamentum opinor, etiam ab initio, partûs dolorus inducere posse; et si tam insignes illi vires, appropinquante graviditatis fine, adjudicemus; similem facultatem eidem, dum recens sit exiguumque ovum, negare, absurdum esset. Haud, profectŏ, propter eam causam secale cornutum ab usu expellendum est. Nihilo minus medicos oportet notitiam ejus virtuti a vulgo, precipicque a mulieribus, dilligentissime celantes in suis pectoribus occulti ferre.

The drug has been exhibited in various forms, chiefly in powder, infusion, decoction, and tincture. The two first are in my opinion the best modes; the tincture I look upon as almost inert. If given in fine powder, about twenty grains is the proper dose; but I am myself generally in

the habit of giving it in infusion. Two drachms may be infused in four or six ounces of boiling water for twenty minutes; a fourth part of the strained liquor should be given at a time, and the dose may be repeated every quarter of an hour, until either its action becomes apparent, or the whole is taken, for I consider it useless to persevere with the medicine if the quantity mentioned produces no effect. I have found that if the infusion be allowed to stand much longer than the time I have specified, it acquires a nauseating property which greatly distresses the stomach. Desgranges used only the black, cortical part, in which he considered its active principle to reside: he gave it in doses of four or six grains, which he found as efficacious as thirty grains of the whole powder. Villeneuve administered it in lavements; and he considers this the most efficacious means of employing it provided there be present much irritability of the stomach.

I have given the ergot in the doses I recommend, for many successive days, on several occasions, and never knew it produce any bad effects upon the mother, except occasionally nausea and vomiting. Usually there is no more evident effect on the system generally than would be observed after taking a cup of tea; but its effects upon the uterus are speedy, powerful, and astonishing. Its action, under labour, mostly commences within fifteen or twenty minutes after its exhibition; and the character of the pains induced through its agency differs materially from the ordinary throes of parturition; so that it is possible in many cases to discriminate them, as being actually produced by the drug itself—they are stronger and more constant than the common pains of labour. When the ergot has obtained a full power over the system, the uterus often acts without any decided intermission for many minutes together;—there being only a slight remission observed,—no interval of perfect ease. M. Chevreul was, I believe, the first to record this observation; the same remark has been made by many other physicians; and I have had myself an opportunity of observing its truth on many occasions.

As the ergot undoubtedly possesses such a strong influence over the uterine system, it is evident that if exhibited improperly it is likely to do great injury.

There are many cautions, then, necessary to be attended to in adopting and employing it. Its exhibition must not be thought of in any case where a disproportion exists between the head of the child and the pelvic cavity; we should incur great danger of inducing contusions, inflammation, and laceration. Neither must it be exhibited where there is any disposition to rigidity of the parts either of the os uteri, the vagina, or the perineum, through fear of the same dangers. As a principle, it is not usually necessary in first children, and therefore this is a case in which we generally should make an exception. It must not be given in any case where the lingering labour depends upon a malposition of the head. It may be admissible occasionally in breech presentations; but in no other kinds of preternatural labour should we ever think of administering the ergot. It must only be given in cases where the sole cause of delay is a torpid or feeble state of uterine action; or where it is desirable to terminate the labour speedily,—and that too by the means of the natural powers,—in consequence of hemorrhage. I have found it very useful in accidental hemorrhage after the membranes have been ruptured; in loss of blood under abortion, where it was impossible to empty the uterus by manual operation; and where the patient would perhaps have sunk from the continuance of the bleeding.

But although I am perfectly convinced of the powers which the ergot sometimes displays under parturition, I am by no means inclined to agree with those practitioners who think that this medicine will entirely supersede the necessity of any other means being used in lingering labour. I cannot coincide in the opinion expressed by Mr. Michell, of Cornwall, who published a treatise on this drug in the year 1828, and stated his conviction, that its general introduction will so completely supersede the use of the forceps, that "he would not be surprised if in twenty years that instrument should be known only by name." And again, he says, "that except in the rare cases in which the Cæsarian operation was formerly recommended, I conceive there will now be no occasion for instrumental aid in midwifery." Such sentiments as these, and such recommendations as Mr. Michell has promulgated, are calculated, in my opinion, to do immense mischief, because they must lead to the blind, injudicious, and dangerous employment, of a very powerful agent. Nor is he likely to serve the cause of which he has stood forward as such a staunch supporter, for he would raise our expectations so high as to lead us to look for impossibilities; and, as it often happens with over-zealous advocates, he has ruined his case by proving too much.

Authors vary very much in the statements they furnish of their success with this grain. This discrepancy may partly be accounted for by the ergot not being fresh, since by being kept it loses its virtue.

It may also be owing partly to the constitution of the patient not being susceptible of its peculiar action. We know that some persons are not susceptible of the peculiar action of mercury; and we may easily believe that in the same manner some constitutions may be unsusceptible to the peculiar action of the ergot of rye.—Dr. Ramsbottom *on Midwifery in Lon. Med. Gaz.*

MR. CORBYN'S TREATMENT OF CHOLERA.

To the Editor of The Lancet.

Sir,—Under a sense of duty to the public, and in justice to the merits of one who is too remote to speak for himself, I take this opportunity of requesting you to insert, in your very useful publication, a few matters of fact relative to that formidable disease with which this country has lately been visited, the cholera.

When I was in India, in 1833, having some cholera patients on board the ship of which I was surgeon, I called on Mr. Corbyn, garrison-surgeon of Fort William, and author of a treatise on cholera, to consult with him regarding the treatment. He recommended me to bleed freely, and to give sedatives, and, after a few hours, to purge freely. This advice I adopted, and I now feel it my duty to state that the treatment was universally successful, while those who had previously been treated with stimulants, invariably died.

I forward this communication to you in consequence of having seen Dr. James Johnson's critique on Mr. Corbyn's work in the *Medico-Chirurgical Review*, wherein the reviewer has stated that his, Dr. Johnson's, and Mr. Corbyn's treatment are the same. But, so far from this being the case, the fact is that Dr. Johnson prescribes stimulants in conjunction with sedatives, which, I am convinced, has been a very erroneous, though a very common practice in many parts of the world.

In subversion of another statement, equally erroneous, which I have heard made by many since my arrival here, viz. that the epidemic which prevailed in this country required a different mode of treatment from that pursued in India, I will mention the following fact:—On a visit to Ireland, a few months back, when cholera raged there, I was credibly informed that a surgeon in Limerick, who had resided some time in India, had treated the disease, when in that town, on Mr. Corbyn's principles, and with the greatest success. I am, Sir, your's, &c.,

R. W. Roberts.

London, June 19th, 1834.

HOTEL DIEU, AT MONTPELIER.

Strangulated Hernia successfully treated with the Extract of Belladonna.

BY M. FRANKEL.

A labourer, of good constitution, aged 42, was struck in the right hypochondrium with a pole of a carriage, which knocked him down. When brought to the hospital, his countenance was pale, extremities cold, pulse small. He had nausea and vomiting; the ejected matter was mixed with mucus; acute pains in the region of the liver. In his right groin was an hernial tumour, caused by the blow he had received. I had him bled, ordered leeches and lotions to the affected part, and prescribed laxative injections. The pain in the right hypochondrium ceased, but the hernia offered to reduction an insurmountable resistance. The hypogastrium became swollen, stercoraceous vomiting supervened, constipation continued, and the patient became very irritable. I proposed the operation, which he obstinately refused. The cold applications were continued; and I had two ounces of the extract of belladonna, mixed with some marsh mallow ointment, rubbed on the hernial tumour and hypogastrium. The result of this application was extremely favourable, and the intensity of the symptoms soon diminished; the hernial tumour became softer and smaller, the vomitings ceased, and some fœtid alvine dejections were passed. The hernia returned, and the patient soon recovered.

Since the above, I have treated six cases with the belladonna, all of which have terminated equally successfully.—*London Medical and Surgical Journal, July*, 1834.

ELECTRICITY FOR THE CURE OF WARTS.

By Albert G. Welch, of Annapolis.

Having had during the past winter, when I attended lectures on chemistry, frequent opportunities of trying experiments with electricity, and having several warts on my hands, to get rid of which I was exceedingly anxious, and having tried repeatedly the efficacy of nitrate of silver, and other caustics, without any advantage, I determined to try the efficacy of electricity. I therefore commenced by sending sparks through them, which was repeated for five minutes daily, for five days, when to my great satisfaction, I found that they had entirely disappeared, since which time they have not re-appeared, which they did when removed by the knife, or by caustic.

As there may be others who would like to be clear of such disfiguring excrescences,

and as the mode of removing them may not be generally known, if you think it worth publishing, I would be glad if you would insert the same in your journal.—*Baltimore Med. and Surg. Journal, Oct.*, 1833.

NEW HERNIAL BANDAGES.

By Messrs. Sanson and Cresson, Eolian Pads.

In the Royal Academy of Medicine, sitting of the 4th Mareh, M. J. Cloquet read, in his own name and that of Messrs. P. Dubois and Harvez, of Chégoin, a report on these bandages.—The principal inconvenience of all hernial bandages arises from the substance which enters into the composition of the pad, and which does not permit it to exereise at all times, a gentle, nniform, constant, and graduated pressure, the only conditions to be fulfilled in the treatment of herniæ. All the substances employed until now have the inconvenience of becoming wrinkled, hardened, &c. Messrs. Cresson and Sanson happily had the idea of fabricating the pads with Indian rubber; they have imagined three kinds:

1st. Pads of all Indian rubber.

2d. Hollow pads, and filled with a quantity of air, which ean be augmented or diminished, whieh they call Eolian pads, with fixed air.

3d. Pads similar to the former, with this difference, that the air can be let out or introduced at pleasure, and in different quantity: Eolian pads with moveable air.

The exterior of all these pads is Indian rubber. The authors have thought proper to cover them with gold leaf, which in adding to the appearance and neatness, does not interfere with its other essential qualities. These pads, independent of the advantages of elastieity, softness, &e., by their nature alone, are capable of any alteration, however long they may be used. Experience has already confirmed their superiority over the ancient ones.—*Revue Médicale.*

ON THE USE OF MERCURY IN ULCERATION OF THE CARTILAGES OF JOINTS.

Every experieneed surgeon must have felt, that all the means whieh have been hitherto employed to subdue this destructive and excruciating affection of the joints, fail but too frequently in saving life or limb; and that they act always too slowly, and seldom so decidedly as to eompletely remove the disease, and secure the patient from a relapse. Hence it is, that Cruveilhier declares, that he knows no means of curing this ulceration, supplying the destroyed cartilages, and favouring their reproduetion; and yet that nature every day eovers with new eartilages, or with new osseous vegetations, the surfaees of bones which were not destined to rub against each other.* Henee it is, also, that Mr. Brodie, in many parts of his invaluable work on diseases of the joints, is found expressing nearly similar opinions. Speaking of synovitis terminating in ulceration, he says, "no method with which I am acquainted, is eapable of doing more than sowewhat eheeking the progress, and somewhat relieving the symptoms of the eomplaint," p. 108, 2nd ed. Again, treating of ulceration of the eartilages as a primary affeetion, he states, that he is not "acquainted with any medieine which can be said to exercise a specific influenee over this complaint,"—p. 177. It is manifest, therefore, that there are these all-important defects in our means of eombating the disorganizing process, and the suffering which attend such cases. With a view to their removal, the subject has long oceupied my attention; but how far I have succeeded remains to be shown, and to be determined by further experience.

Mercury, from its decided and happy effects in all kinds of membranous inflammation, always appeared to me to be the only agent eapable of answering the various ends in view. But the injurious consequences so generally said to attend its use in scrofulous persons, who are so frequently the subjeets of this affection of joints, deterred me for a long time from giving it a trial. The following considerations, however, could scarcely fail to have great weight. In the first place, it must be admitted, that injurious eonsequences have not always attended the use of mereury in strumous persons, and as far as my experience has led me to observe, they have supervened ehiefly in cases where ptyalism has been produced slowly, or only in a slight degree. Secondly, we are not without means of antieipating and preventing the supervention of such consequences, or of combating them

* Je ne connais aucum moyen de remédier à cette usure, de suppléer aux cartilages détruits, de favoriser leur reproduction, et cepedant tous les jours la nature couvre de cartilages nouveaux des surfaces osseuses, qui n' étaient point destinées à frotter les unes contre les autres, ou des végétations osseuses nouvelles.—*Dictionaire de Médecine et de Chirurgie Pratiques*, t. iii. p. 509, art. Articulations, (Maladies Des.)

when they have supervened. Thirdly, in cases of syphilitic iritis occurring in scrofulous persons, we do not hesitate to use mercury, so as to produce ptyalism as rapidly as possible, in order to save the eye; and yet, we rarely observe serious consequences to attend the practice. Fourthly, it is manifest that there is much greater danger in permitting such a disorganizing process to go on unchecked in the cartilages of joints, than from any of the ordinary consequences of the free use of mercury in strumous habits. Ultimately, these considerations prevailed, and decided me on giving this agent a trial in cases of the description under consideration; and to employ it so as to act rapidly and fully on the mouth. The first trial was made, about a year ago, in the case of a woman admitted into the Richmond Surgical Hospital, with ulceration of the cartilages of the knee joint. In this case, the value of the mercurial plan of treatment seemed to be established by the disappearance of all the symptoms, as soon as the mouth became affected; and by the fact of the woman regaining the full power of walking, and being discharged perfectly well, in the course of a fortnight from her admission. Since that time, I have tried the same plan in similar affections of the joints, and with similar results. Three of my colleagues in the Richmond Surgical Hospital, and Mr. Cusack Roney, one of the senior surgeons of the Meath Hospital, have also employed it with success; and I shall now detail some of the cases which have been treated by myself and these gentlemen, on the mercurial plan.

WRIST JOINT.

Case.—James Carroll, aged 21, of delicate make, and pale, strumous countenance, admitted on the 21st of September, 1833, into the Richmond Surgical Hospital, under my care. He makes the following statement:—about four months ago, he received a blow on the right wrist, which produced pain and swelling of the joint. These were removed in the course of four weeks by stupes, poultices, and blisters. Six weeks after, he got a fall, by which, the wrist joint was violently flexed, and immediately became painful, and soon after swelled. Leeches, cold lotions, fomentations, succeeded by blisters, and a variety of other stimulating applications, were employed by several medical gentlemen, under whose care he had been, but without any benefit. His state, on admission into this Hospital, is as follows: the right wrist joint is considerably swelled, and evidently contains a fluid. The hand, when unsupported, hangs down, and the ligaments of the joint being greatly relaxed, it may be moved much more freely than usual, and in almost every direction. On pressing the hand upwards, so as to bring the articular surfaces of the wrist into contact, excessive pain is felt in the joint; but on making extension from the hand, so as to separate these surfaces, he says, that he is relieved from pain, which is otherwise constant and severe, but so much more so at night, that he scarcely enjoys any sleep. The skin of the back of the hand approaches to a livid colour. His pulse is quick, and the tongue covered with a whitish fur. The bowels are rather regular.

On his admission leeches were applied to the wrist. Afterwards blisters were repeatedly placed on the joint, and dressed with strong mercurial ointment. Subsequently, frictions with liniment of olive oil and sulphuric acid were used; iodine lotions, and lotions of acetate of lead were applied; straps of belladonna and mercurial plaster were placed round the joint, and so as to exert considerable pressure; and the fore-arm and hand were constantly kept extended on a splint. The internal remedies employed, were purgatives occasionally; colchicum draughts at bed time; ten drops of tincture of iodine taken three times daily for a week; and compound infusion of sassaparilla. But all these means proved fruitless; the wrist continued as much swelled as before, and the pain and sleeplessness were rather increased than diminished, while the general health and strength seemed to have suffered considerably.

Under these unpromising circumstances, I resolved on putting him under the mercury. Accordingly, on the 12th of October, (three weeks from his admission into the Richmond Surgical Hospital), eighteen grains of calomel and three grains of opium were ordered to be made into six pills, and he was directed to take one of these every third hour.

14th. No material change. Pills repeated.

15th. Mouth becoming affected. Slept last night better than usual; and there is now much less pain on bringing the articular surfaces in contact. Complains of griping pains in the bowels, which have been constipated for some days. Ordered, a draught of castor oil, compound tincture of senna, peppermint water, and mucilage.

16th. Severe griping pains; bowels not freed; mouth somewhat more affected; has had some sleep. Ordered to have a bolus consisting of five grains of calomel, fifteen grains of compound powder of jalap, and a sufficient quantity of electuary of senna; and if the bowels are not freed in the course of two hours, to take a draught

of infusion of roses and sulphate of magnesia.

17th. Bowels well freed; no griping pains in the abdomen; mouth still more affected; general state improved.

21st. Mouth very sore. Slept soundly last night; pain remarkably diminished, and some diminution of the swelling of the wrist. Ordered a gargle composed of two ounces of the solution of chloride of soda, five ounces of water and one ounce of simple syrup.

22nd. Ptyalism profuse. Pain and swelling of the joint still further diminished. Inside of the mouth to be brushed with a ten grain solution of nitrate of silver. A cold lotion to be applied over the joint.

23rd. Great swelling, tension, pain, and redness of the hand and inferior portion of the fore-arm, which the patient attributes to the cold lotion. The hand and fore-arm to be enveloped in a warm emollient poultice. Cold lotion to be omitted. Gargle to be repeated.

25th. Swelling, tension, redness, and pain nearly gone. Sleeps well at night. General health improved. The hand not only does not fall down when unsupported; but he has even regained the power of flexing and extending it tolerably well.

30th. Complains of nothing but weakness of the joint. Discharged from Hospital; but directed to keep the hand extended on a splint for some time, and to frequently use friction with olive oil.

This man again presented himself at the hospital on the 31st of last December, (two months from his discharge), with a small fluctuating tumour situated over the centre of the third metacarpal bone of the same hand. This tumour was opened by a lancet, and discharged a small quantity of scrofulous matter. In a few days the abscess was perfectly healed; and he was able to resume his ordinary occupations; but the ligaments of the wrist were still rather relaxed.

The following case came under the care of my colleague, Dr. Ephraim M'Dowel, who, with his usual liberality and kindness, transferred its treatment to me.

ANKLE JOINT.

Case.—William Cromwell, a tailor, aged 21, and decidedly of a strumous constitution, admitted into the Richmond Surgical Hospital, on the 11th of February, 1834. He states, that about three years ago, he first experienced a dull pain, without any swelling, in the left ankle joint; and that in a year after, he could not sit with his legs crossed, as is usual with persons of his trade, from severe pain in the joint. A blister, applied to the ankle, was followed by an aggravation of pain, and the appearance of swelling. He was afterwards admitted into the Downpatrick Infirmary, where blisters and frictions with tartar emetic ointment were employed, but without affording him any relief. There is now such swelling as to obliterate the natural depressions about the ankle; he has severe pain in the joint, increased by striking the heel; and it is so much more severe at night, that he is frequently disturbed from sleep. He cannot walk or bear his weight upon the limb without considerable pain, and he complains of frequent startings of the leg and thigh. His general health appears to be good. Ordered to be placed on low diet, and take, every third hour, a pill, containing three grains of calomel and half a grain of opium.

16th. After taking three pills, his mouth became slightly affected, and soon after he became faint, vomited, and refused to take any more pills. Ordered to take a dessert spoonful, three times in the day, of a mixture composed of an ounce of infusion of cinchona, and one grain of oxymuriate of mercury; and to rub the joint with tartar emetic ointment.

18th. Mouth affected, but not fully; pain and swelling of the joint diminished; starting of the limb less frequent. A few scattered pustules about the joint, and on the inner side of the foot; tartar emetic ointment discontinued; mixture continued.

19th. Slept well last night. Slight salivation; feels much less pain on striking the heel. One grain of calomel, and three grains of aromatic powder, ordered to be taken every fourth hour.

20th. Has slept soundly during the night. Mouth fully affected. Pain and swelling still more diminished; can stand and bear upon the affected limb, and in doing so, complains chiefly of weakness, and very little of pain in the joint. Calomel pills omitted.

22nd. A considerable degree of salivation. Very little pain on striking the heel, but it is felt in standing, yet much less severely than at the time of his admission. When in bed, he moves the joint freely, and without inconvenience, which he could not do before, and he says, that "the joint is much more supple and easy than it has been for a long time."

24th. Improving. Ordered a gargle of chloride of soda.

27th. Mouth very little affected. Sits, on being directed, in the cross-legged posture, and says, that he has far less pain in doing so, than he had felt during the last two years. Standing still gives considerable pain in the ankle; less thickening about the joint. Ordered a grain of calomel

and three grains of aromatic powder, every third hour.

28th. Mouth not affected; has been very frequently purged, and with severe pain. Twelve grains of calomel, and two of opium, to be divided into four pills, and one of these to be taken every fourth hour.

March 1st. Mouth very little affected; has had no purging or tormina. Pills of calomel and opium repeated.

2nd. Considerable ptyalism. Gargle of chloride of soda repeated. Pills omitted.

3rd. Mouth still much affected. Able to sit cross-legged without any pain. Complains of slight tormina.

8th. Very little affection of the mouth; appearance of the joint improved; has very little pain in standing. Can sit cross-legged, and in this position springs up and down so as to throw the weight of his body on the ankles, without feeling any degree of pain. Thinks himself getting rapidly well. Ordered to be still confined to the recumbent posture; to rub two drachms of camphorated mercurial ointment daily, to the affected joint; to take a pint of the compound infusion of sarsaparilla every day; and to be placed on full diet.

This man is still in hospital, and improving daily, but the disease has been of such long standing, that perfect recovery cannot be expected for some weeks.

HIP JOINT.

Case.—On the 28th of November, 1833, I was requested to see Miss Eliza O———, residing at Booterstown Avenue, near this city, aged fourteen, of an active, lively disposition, with blue eyes, and a clear, delicate complexion. This young lady's mother informed me, that her daughter was observed, about a month ago, to limp about the house, apparently without pain; that in walking, she moved the right leg outwards, and so as to describe a half-circle; that about a fortnight ago, she complained of a pain in the left hip, groin, and knee, which was at first of a dull kind, but gradually became so acute, particularly at night, that her father became alarmed, and confined her to bed. On carefully placing her for examination, in the horizontal position, the internal malleolus of the left leg is situated lower by half an inch than that of the right; and the left heel evidently descends lower than the right. Striking the left heel, ever so gently, gives her great pain in the hip joint. The slightest pressure over the left groin, where there is some tumefaction, or on the corresponding trochanter, also causes severe pain in the hip joint. She complains of acute pain in the knee, shooting along the leg to the ankle; and she cannot bear the left ham to be pressed upon. Pressure along the course of the sciatic nerve produces no inconvenience. When taken out of bed, she stands with the affected knee bent and advanced beyond the sound one; and puts only the toes of the left foot to the ground; the left nates is flattened, flaccid, and apparently broader than the right, and there is no vestige of the transverse fold in which it naturally terminates. Pulse natural, general health little impaired, bowels rather confined, tongue whitish.

This being the first opportunity that I had of treating the disease in the hip, on the mercurial plan, I was naturally anxious to give it a trial. But I considered it only fair and prudent to represent all the facts of the case to the young lady's parents, and recommend a consultation. My representation had the desired effect, and it was agreed to call in the able assistance of my colleague, Mr. Richard Carmichael. Six leeches, followed by cold lotions, were ordered to be applied to the affected groin.

On the following morning she was seen, in consultation with me, by Mr. Carmichael, who at once recognized the case as one of hip disease, and concurred in the propriety of employing mercury, in conjunction with other means. Ordered to take a pill consisting of one grain of calomel, and two grains of aromatic powder, three times daily, until the mouth becomes touched; to have a blister applied behind the left great trochanter; and the vesicated surface to be dressed with tartar emetic ointment; also, to be confined to the horizontal position in bed, and to lie on a firm mattress.

December 3d. Mouth slightly affected. Says that she feels greatly relieved from pain; but complains of the severity of the blister; bowels still confined. Pills to be repeated until the mouth becomes more decidedly affected; and if the bowels be not moved before to-morrow morning, to have a dose of castor oil.

5th. Has taken five pills since last visit. Took also a dose of castor oil yesterday morning, which produced dark green discharges from the bowels. The gums are now tender, and the breath is fetid. There is no pain on pressure upon the groin, or in the ham, of the affected side. She no longer complains of pains in the knee or leg; the left nates is nearly as plump and firm as the right, and the transverse fold at its lower margin has reappeared, and is distinctly marked, but it is situated somewhat lower down than on the opposite side; and both lower limbs are precisely of the same length. Pills omitted; allowed weak chicken broth.

8th. No pain whatever in the groin, knee, or ham. On being placed standing on the floor, she brings both heels together, and walks without feeling the least inconve-

nience; scarcely any ptyalism. Ordered two grains of calomel every day, and to go on, in other respects, as before.

9th. Seen by Mr. Carmichael and myself; admitted to have little, if any, vestige of the disease. Mouth slightly affected; bowels regular. Says that she feels rather weak, yet in the absence of her attendant, has been detected in running about the room, as if she had no complaint. Ordered to have strong beef, tea and chicken broth *ad libitum;* to take two grains of calomel every second day; and every vigilance to be used in keeping her confined to bed, and in the horizontal position.

17th. Scarcely any affection of the mouth. Health, in every respect, good, and feels much stronger; none of the external signs of the disease visible; and on being permitted, walks about the room without feeling the least pain, or any greater weakness in the left than in the right limb. Calomel discontinued. Permitted to have moderate quantities of solid animal food, and light table beer; but still to be confined to the recumbent position.

30th. Seen by Mr. Carmichael and myself. In excellent health; insists that she is "as strong and as well as ever," and is very urgent to be allowed to get up and walk about; and, after the most careful examination, no difference whatever is observable in the lower extremities. Directed to be confined to a sofa; to have a little wine and water, and the most nourishing articles of food; and to take half a pint of the compound infusion of sarsaparilla daily, for some weeks.

After being treated thus for three weeks, this young lady was at length permitted to walk about, and return to her former pursuits. Since that time, she has had no enlargement of the lymphatic glands, nor any of the other unpleasant consequences of the use of mercury in strumous persons; and she is now, (March the first, 1834,) in perfect health.—Dr. James O'Beirne in *Dub. Jour. Med. and Chem. Sc., May*, 1834.

NOTE OF THE POST MORTEM EXAMINATION OF A FEMALE WHO COMMITTED SUICIDE ALMOST IMMEDIATELY AFTER COITUS.

By H. Bond, m. d., of Philadelphia.

[We insert an accurate report of this case, as it was garbled by a contemporary, and pirated without acknowledgment. So far as it goes it is valuable but the conditions of the vagina, os uteri, and orifices of the uterine tubes are omitted, and leave the narrative unsatisfactory.—Eds.]

In May, 1827, I was invited by Dr. Samuel Tucker to examine, post mortem, the body of a female who had destroyed herself with laudanum. She was apparently between eighteen and twenty years of age, well formed, and in good health. She passed a night, or the most of it, *in coitu* with a young man, and before morning, swallowed a large quantity of laudanum. Dr. Tucker was called to her in the course of the morning, but so late that all his efforts to restore her were ineffectual. The body was opened the next morning in the presence of Drs. Tucker and Meigs. Neither the head nor chest were opened. The viscera of the abdomen, as far as they were examined, exhibited no mark of disease, but the odour of laudanum was very strong in the stomach. I removed the internal organs of generation, and took them home for examination.

The uterus was larger than I had ever before seen it when healthy and unimpregnated, and its colour indicated more vascularity. The ovaries were large, extremely vascular, and situated nearer the uterus than usual. Instead of hanging loose at the distance of an inch or more, they appeared to be drawn so close to the sides of the uterus, that there was scarcely the space of a quarter of an inch between them. The Fallopian tubes were very vascular, so much so as to give them a firmer and more fleshy appearance than usual, and instead of ending in loose, floating fimbriæ, appeared to terminate by a union with the ovaries, and to be very tortuous on account of the short distance between the ovaries and the origin of the tubes. On the surface of the ovaries were seen a few small vesicles of the size of shot, projecting little or none beyond the surface of the gland, and containing a slightly turbid fluid. From the ovaries and the fimbriæ several small vesicles were seen hanging by extremely delicate pedicles, from one-fourth to seven-eighths of an inch in length. They looked like pyriform drops of mucus, a little larger than the seeds of grapes, covered with an extremely delicate pellicle, which appeared to constitute the fibrils by which they were suspended. Upon cutting open the uterus, it was found to be thickly coated with a substance having the appearance and the strong peculiar odour of semen. Some of this substance was in the neck of the uterus. The Fallopian tubes (at least the one which was laid open) contained apparently the same matter, but whether it possessed the seminal odour was not ascertained. Upon wiping this matter from the lining membrane of the uterus, it was found to be of a vivid red, as red as the conjunctiva in acute opthalmia, or as if it had been injected with vermilion.—*American Journal of the Medical Sciences.—London Med. and Surg. Jour., July*, 1834.

SUPERNUMERARY NIPPLES.

The human female presents irregularities of the breast not less frequently than other mammalia. In addition to the instances already on record, I myself have observed the following:—In the year 1824, Maria R., born in Hagenfeld, near Pforzheim, was admitted into our Lying-in Hospital. Her left breast was furnished with two nipples, each of which was enclosed within a separate areola. The supernumerary nipple was situated about three fingers' breadth beneath the other. This breast, on the whole, was not larger than that of the right side. She had a child, and milk came in as great abundance from the supernumerary as from the other nipples.

In the year 1825, the body of a girl was brought into our dissecting-room: she was about twenty years old, her breasts were beautifully formed, and well developed, but each furnished with two fully-formed nipples, surrounded by a common areola. In 1829, the wife of a Dutch soldier, named Walter, called for the purpose of consulting me; and during the examination of her chest, I observed that the left breast was provided with two nipples; each of which gave milk, *and were surrounded with a common areola.* She assured me that her mother had exactly the same conformation. —*Tiedemann, in Zeitschrift für Physiologie.—Lon. Med. Gaz. July*, 1834.

FUNGUS HÆMATODES — AMPUTATION AT THE SHOULDER-JOINT— INSTANTANEOUS DEATH FROM THE ADMISSION OF AIR INTO THE VEINS.

COMMUNICATED BY M. H. JOFFRE.

A man, about 30 years of age, came to the hospital for fungus hæmatodes, which occupied nearly the whole extent of the arm and fore-arm. The skin covering the tumour was very thin, and ruptured in some parts, hemorrhage supervened, and the disease made rapid progress. Amputation at the shoulder-joint was proposed as the only means of saving the life of the patient. The operation was undertaken; and scarcely had the arm been detached from the body, when the patient suddenly expired; lightning could not have produced death more speedily. The vessels, as we usually find them in this disease, were enormously increased in calibre; nevertheless, not much hemorrhage took place during the operation.

The surgeon, surprised at such an unexpected and unforeseen occurrence, had the body placed in water, in which he examined it before a number of spectators. On cutting into the heart, a gush of air escaped, which at once revealed to him the cause of death. —*London Med. and Surg. Jour., July*, 1834.

SINGULAR CASE OF A FOREIGN BODY FOUND IN THE HEART OF A BOY.

BY THOMAS DAVIS,

Surgeon, Upton-upon-Severn.

On Saturday evening, January the 19th, 1833, I was summoned to attend William Mills, aged 10, living at Boughton, two miles from Upton. When I arrived, his parents informed me that their son had shot himself with a gun made out of the handle of a telescope toasting-fork. To form the breech of the gun, he had driven a plug of wood, about three inches in length, into the handle of the fork. The touch-hole of the gun was made after the charge of powder had been deposited in the hollow part of the handle; the consequence was, that when the gunpowder exploded, it forced the artificial breech, or piece of stick, from the barrel part of the gun, with such violence that it entered the thorax of the boy on the right side, between the third and fourth ribs, and disappeared. Immediately after the accident the boy walked home, a distance of about forty yards.

By the time I saw him, he had lost a considerable quantity of blood, and appeared very faint. When I turned him on his right side, a stream of venous blood issued from the orifice, through which the stick entered the thorax. Several hours elapsed before any degree of re-action took place. He complained of no pain.

For the first ten days or a fortnight after the accident, he appeared to be recovering, and once, during that time, walked into his garden and back, a distance of about eighty yards; and whilst there he amused himself with his flowers, and even stirred the mould. He always said he was well, and was often cheerful, and even merry. There was no peculiar expression of countenance, excepting that his eyes were rather too bright.

After the first fortnight he visibly emaciated, and had frequent rigors, which were always followed by faintness. The pulse was very quick. There was no cough nor spitting of blood. The secretions were healthy. He had no pain throughout his illness.

He died on the evening of the 25th of February, exactly five weeks and two days after the accident occurred. At the examination of the body there were present, the Hon. W. H. Coventry, Mr. Walker, the

father of the boy, Mr. Sheward, surgeon, and myself.

On opening the thorax, a small cicatrix was visible between the cartilages of the third and fourth ribs, on the right side, about half an inch from the sternum.

There was no effusion of blood, or of serum, into the sacs of the pleura.

The lungs appeared quite healthy, excepting that there was a small tubercle in the right lung, and at its root, near to the pulmonary artery, a small blue mark in the cellular tissue, corresponding in size with the cicatrix on the parietes of the chest.

Heart and pericardium.—When the pericardium was divided, about half an ounce of serum was found in it.

The heart, externally, appeared healthy.

When an incision was made into the heart, so as to expose the right auricle and ventricle, we were astonished to find, lodged in that ventricle, the stick which the boy had used as the breech of the gun, the one end of it pressing against the extreme part of the ventricle, near the apex of the heart, and forcing itself between the *columnæ carneæ* and the internal surface of the heart; the other end resting upon the auriculo-ventricular valve, and tearing part of its delicate structure, and being itself encrusted with a thick coagulum, as large as a walnut.

We searched, in vain, for any wound, either in the heart itself, or in the pericardium, by which the stick could have found its way into the ventricle.

Observations.—This case strikes me as one of the most interesting on record. In the first place, that this child should have survived such an accident, as the lodgment of a stick, three inches in length, in the right ventricle, and have been afterwards equal to so much muscular exertion as he was, appears wonderful, especially if we consider the mechanical difficulty which the heart had thereby to encounter in carrying on the circulation of the blood.

In the next place, it appears somewhat difficult to point out how the stick found its way into the right ventricle of the heart. There was no wound, nor remnant of a wound, either in the pericardium, or in the muscular structure of the heart. The stick seems to have entered the mediastinum, without wounding the anterior part of the right lung, but to have wounded the posterior portion of the lung, near its root. What became of the stick afterwards is uncertain, excepting that we know it found its way into the heart.

I am inclined, myself, to think, that the stick, after wounding the lung, passed into the vena cava, and was carried by the stream of blood, first into the right auricle, and then into the right ventricle, where it became fixed, in the manner before specified.—*Lon. Med. Gaz. June*, 1834.

CASE OF "SPONTANEOUS EVOLUTION" OF THE FŒTUS.

By JOHN THURNAM, *M.R.C.S., London.*

Although *the spontaneous expulsion of the fœtus, in cases of arm presentation*, or, as it is more generally called, its "*spontaneous evolution*," can scarcely be considered rare, after the number of cases that have been recorded by intelligent and accurate observers, yet, when we are told by Dr. Burns, that even in Glasgow, "not more than two cases have ever happened," we are, I conceive, hardly yet justified in considering the relation of such cases to be superfluous.

In taking down the following notes of this case when it occurred, I had a view of submitting them to the notice of practitioners through the medium of one of the periodicals, but have hitherto neglected doing so. Seeing, however, Dr. Malcolm's paper on the subject in the last number of the *Edinburgh Medical and Surgical Journal*, in which he urges the propriety of such cases being put upon record by those practitioners who have met with them, I no longer defer placing the notes, such as they are, in the columns of THE LANCET.

Amelia Pyefinch, residing at 56, Wardour Street, Soho, was seized with labour pains, early in the morning of the 26th of January of the present year, and I was summoned to her assistance. This was her second labour, and the commencement of the eighth month of her pregnancy. On entering her chamber, I found the uterus contracting violently, as I was also informed it had been for about an hour. Upon making the usual examination I found a large bag, formed by the membranes containing the liquor amnii, presenting as low down as the os externum. I was, however, perfectly unable to detect through these the presenting part of the fœtal body, and the same difficulty existed on my introducing the hand into the vagina, notwithstanding the os uteri was fully dilated. I had only just completed this investigation, when the membranes were protruded, which, so far as expelled, amounted, with the contained fluid, to about the usual size of the fœtal head. These being ruptured by the next uterine contraction, and about a pint of the liquor amnii having escaped, on again introducing my fingers, I found that one of the great ginglymoid joints, which proved to be the elbow, was down in the vagina, almost as low as the os externum. I imme-

diately proceeded to endeavour to introduce my hand into the uterus, in order to turn, but owing to the shoulder being wedged in the outlet of the pelvis, as well as to the powerful and repeated contractions of the uterus, I found it to be impracticable, and was compelled to desist, not however without hopes,—taking into consideration the stage of pregnancy,—the activity of the uterine contractions,—and the evident death of the fœtus, that its expulsion might take place without instrumental aid. That these hopes were not unwarrantable, was proved by the effects of the very next uterine contraction, for by it the dead fœtus was expelled in the following manner:—First, the presenting arm and shoulder were expelled, then the trunk, doubled upon itself, with the shoulder and arm of the opposite side; these were immediately followed by the breech and inferior extremities; last of all the head itself was protruded. The whole was accomplished in less than half an hour after my entering the room.

In this case there was not the least attempt at retraction of the arm, although the efforts which I made to introduce my hand, would have favoured any such tendency had it existed; and the expulsion of the body of the fœtus, doubled upon itself, took place immediately after that of the shoulder had been effected, without any great impediment, and without occasioning any uncommon degree of pain to the mother. It will hence be observed, that this case fully confirms the explanation of the mechanism of this (view it as we may) extraordinary phenomenon in parturition, as given by Drs. Douglas,* Gooch,† Burns,‡ and Jewel,§ and that it is equally opposed to that first offered by Dr. Denman, and more recently supported by Dr. Kelly.‖

I make use of the term "spontaneous expulsion" (understanding it of course to be restricted to "cases of arm presentation"), in preference to the more common one of "spontaneous evolution," as the latter appears to be founded upon an erroneous view of the subject, and, if it be so, can only be regarded as calculated to perpetuate an error.

London, June 17th, 1834.

[*Lancet, June*, 1834.

* An Explanation of the Process of the Spontaneous Evolution of the Fœtus, &c. By John C. Douglas, Dublin. 2d edit. 1819.

† Medical Transactions of London. 6th volume.

‡ Principles of Midwifery. By John Burns, M. D. 8th edit.

§ London Practice of Midwifery. 6th edit. 1833. By George Jewel, M. D.

‖ Essay on the Spontaneous Evolutions, &c. 1816. By John Kelly, M. D.

TREATMENT OF ULCERS.

M. Gerdy, about a twelvemonth ago, instituted a number of experiments at the Hôpital St. Louis, on the different methods of treating ulcers; different sets of patients were submitted to the different methods, and each method was employed by itself, in order that the results of each might be justly appreciated. Many of the details have been published in the article "Attitude," in the Nouveau Dictionnaire de Médécine. We shall mention a few of them.

When the limb on which an ulcer existed was kept upon an ascending inclined plane, it was found that the sore became pale, the suppuration was diminished in quantity, and a crust soon began to be formed upon the surface, and under this the healing went on more or less rapidly. If strips of adhesive plaster were used, at the same time that the elevated inclined position was retained, the cure was still more rapid: it was by combining the elevation with the use of adhesive bandages, and the entire repose of the limb, that the cicatrization of the ulcer was most speedily effected. Several cases of severe contusion were treated on the same plan, with very decided success—the contused limbs being retained in an elevated inclined position during the whole period of the treatment; the decrease of the pain, tension, and tumefaction was sometimes truly remarkable.

M. Gerdy is of opinion, that many white swellings of the joints may be very materially benefited, by an application of the principles which have directed his treatment of ulcers. He recommends that the affected limb be kept perfectly quiet, and on an inclined plane, so that the foot is considerably more elevated than the thigh. He is not yet provided with the reports of any cases to prove the correctness of his ideas; but in one case of elephantiasis of the leg, treated by elevation of the limb, and compression at the same time, the result was most satisfactory—the subsidence of the enlargement was very striking.—*Archives Générales.—Med.-Chir. Rev., July*, 1834.

ON THE TORSION OF ARTERIES TO ARREST HEMORRHAGE IN VETERINARY OPERATIONS.

By W. Youatt, *Esq., Professor of Veterinary Medicine, University of London.*

A few days after the appearance of Mr. Costello's excellent paper on torsion, in April last, a pointer bitch was brought to my infirmary with a large scirrhous tumour near the anterior teat on the left side. It

had been gradually inereasing during the last five months; it was becoming more irregular in its form, and on one of its tuberculous prominences was a reddish spot, soft and somewhat tender, indicating that the proeess of suppuration was about to eommence.

I had often, or almost uniformly, experienced the power of iodine in dispersing glandular enlargements in the neck of the dog, and also those indurated tumonrs, of various kinds, which form about the joints of some domestieated animals, particularly of cattle; but frequent disappointment had convinced me that it was, if not inert, yet very uneertain in its effect in causing absorption of tumours about the mammæ of the bitch. Having also been taught that the ultimate success of the excision of these enlargements, depended on their removal before suppuration had taken place, and the neighbouring parts had been inoculated by the virus which so plentifully flowed from the ulcer, I determined on an immediate operation; and as the tumour was large, and she was in high condition, I thought it a good case for *the first trial of torsion.* She was well physicked, and on the third day was produced before my class, and properly secured. I had not provided myself with the *torsion forceps*, but relied on the hold I should have on the vessel by means of a pair of common artery forceps; and although I am not prepared quite to justify this apparent carelessness, I am very glad that I used the instrument which I did, for it beautifully established the power of torsion in arresting hemorrhage.

Two elliptical incisions were made on the face of the tumour, and prolonged anteriorly and posteriorly, about an inch from it. The portion of integument which could be spared was thus enclosed, while the opposed edges of the wound could be neatly and effectually brought together after the operation. The dissection of the integument from the remaining part of the face of the tumour was somewhat slow and difficult, for it was, in a manner, identified with the hardened mass beneath; but the operation proceeded more quickly as I turned off from the skin sides of the tumour, and we very soon had the scirrhus exposed, and adhering to the thorax by its base. About two ounees of venous blood had now been lost.

I was convineed that I should find the principal artery by which the excrescence was fed, at its anterior extremity, and not far from the spot where suppuration seemed to be preparing; therefore, beginning posteriorly, I very rapidly cut through the cellular texture, elevating the tumour, and turning it back, until I arrived at the inner and anterior point, and there was the only source of supply. The artery was plainly to be seen. In order to give the experiment a fair chance, I would not enclose it in the forceps, but I cut through it. A jet of blood spirted out; I then seized the vessel as quickly as I could, and began to turn the forceps; but before I could effect more than a turn and a half, I lost my hold on the artery. I was vexed, and paused, waiting for the renewed gush of blood, that I might seize the vessel again; but, to my surprise, *not a drop more blood came* from the arterial trunk—that turn and a half had completely arrested the hemorrhage. I can safely say, that not two drams of arterial blood were lost.

The wound was sponged clean: there remained only the slightest possible oozing from two or three points; the flaps were brought together, secured by the ordinary sutures, and the proper bandages applied. The weight of the tumour was now ascertained; it was twenty-two ounces.

There was no after bleeding, nor any unpleasant occurrence; but the wound, which was nearly six inches in length, was closed in little more than three weeks.

I regard the use of the artery forceps, and the slipping of these inefficient instruments, as a fortunate occurrence, and as setting the question, as to the practicability of this mode of operating, perfectly at rest; but, most assuredly, I will be better provided another time.

I cannot help thinking that, while in the human being torsion bids fair to supersede the ligature, it will, in our practice, drive that relic of the olden and debased state of our profession, the application of the cautery in these cases, fairly out of the field. In docking, there cannot be a doubt that it will be found readily practicable, and quite effectual; and our patients will escape much torture, and tetanus lose many a victim. The principal danger in castration arises from the severity with which the iron is applied, and sometimes necessarily so, or from the inflammation set up by the caustic or the common clams. He will essentially promote the cause of seience, and, what should be as dear to all of us, the cause of humanity, who will avail himself of the opportunity which country practice affords of putting the effeet of torsion to the test. The colt, the sheep, the calf, will be fair subjects for experiment. The cautery, as it regards the first, and the brutal violence too frequently resorted to in operating on the others, have destroyed thousands of animals. — *Veterinarian*, June. — *Lancet, June*, 1834.

WOUND OF THE DURA MATER.

17th April. Dr. Banning in the chair. Mr. Banner related the case of a child, aged 22 months, which had been kicked by a horse on the right parietal bone; fracture with depression, and a slight wound through the scalp, resulted.—Not one bad symptom observed till the 8th day, when there was puffiness of the scalp over the fracture, an offensive discharge, with feverishness. A crucial incision was made, and exposed a triangular fracture, an inch and a half in extent each way. A brain-like substance exuded from the fissure. In a few days, the denuded bone assumed a very unhealthy appearance: the discharge was very offensive. The whole depressed portion of bone was in consequence removed, when *the dura mater was found perforated in three places.* It was now a month since the accident, and no bad symptom has appeared; the wound is nearly healed, and the child quite well in health.—*Trans. Liverpool Med. Soc. from Med.-Chir. Rev., July*, 1834.

INJURY TO THE ARM FOLLOWED BY SEVERE TETANUS, SUCCESSFULLY TREATED.

By WILLIAM MOORMAN, *Esq., Jun., St. Columb.*

Without exactly transcribing from my minute-book the notes of this case, I beg to furnish a narration of its origin, progress, and termination, because it is one which, I am led to believe, in its result, is not generally so fortunate as this has proved to be,—from the circumstance, perhaps, of our varying and unfixed practice, necessarily the consequence of our ignorance of the pathology or proximate cause of the disease.

Wm. Liddicote, a labourer, ætat. 35, while working at a water-machine on the 8th of March last, had his right arm caught between the cog wheels, which produced a severe and large wound of the upper arm, extending from the lower portion of the deltoid muscle in the direction of the shaft of the humerus to the elbow, tearing the substance of the biceps, excepting a few of its internal fibres, the brachials anticus, and wounding the supinator mass of muscle at the elbow. The bone was denuded and exposed to the extent of three inches, as was the sheath of the brachial artery, but without any breach. There was some venous hemorrhage from the lower part of the wound.

The jagged portions of muscle were removed, and the limb was laid on a pillow, after the application of lint and roller, which last was wetted by the spirit lotion. Up to the 12th, the usual constitutional irritation (severe) was treated principally by purgatives and opiates, when we observed a constant complaint of pain *in epigastrio*, not increased on pressure, which however certainly discovered slightly rigid abdominal muscles. These symptoms continued, without aggravation, to the 18th, accompanied by a pulse ranging from 86 to 96, when it was hoped that no further development of the affection would take place. But here another accident arose —hemorrhage from the brachial artery, which was involved in the sloughing process as high as just as that* vessel is on the brachialis anticus; and for this cause amputation was performed at the superior third of the arm, by making one long external flap; its base was met by dividing the soft parts about half an inch below the attachment of the teres major tendon. From this time to the 24th, we had no other unusual attendant circumstance when the ligature came off, but on the 26th, the abdominal muscles were more rigid; there was stiffness about the neck and jaw, which were complained of on the 23rd, and his countenance presented the tetanic expression. By the 28th, his condition was worse, his mouth was incapable of being opened to a greater extent than a quarter of an inch, and on the 2d of April, there was complete tetanus—muscles of trunk and lower extremities affected, and recurrence of most distressing spasmodic paroxysms, at intervals of ten or fifteen minutes.

On to this time, from the 26th of March, his treatment had consisted in using purgatives, with little effect, and opium, in substance, to the extent of from four to twelve grains in the twenty-four hours, without any apparent advantage. In this stage of the case, which was considered the "mere despair of surgery," I succeeded in getting on the tongue a quantity (five or six drops) of *croton oil*, which, in four hours, produced violent purging, with pain on pressing his boardlike abdomen, and much sickness, the more distressing from the rigid contraction of his maxillary muscles. But this effect was followed, in the night, by interruptions of the regularity of spasms and abatement of their violence; and on the 3rd of April, the sufferer was evidently better. His sickness, &c. continued to the 7th, with slow but progressive diminution of his tetanus. It must be added, that on the 4th, his purging having ceased, he received an enema, holding ℥ij each of

* Sic in origine.—EDS. I. J. M. S.

castor oil and spirit of turpentine, and 3iij of tincture of opium, with a purgative effect, and that on the following day he took, at three doses, six grains of opium. On the 8th, his symptoms returned, with less violence however, and they were relieved by the administration of twelve drops of the *solutio muriatis morphinæ*, and one of prussic acid, every second hour, to three doses, in the nights of the 8th and 9th. On the morning of the 10th, he had a distinct rigor, and from this time to the 16th, he regularly went on to recovery, leaving me with a stump, having an exposed anterior surface of bone, of the extent of the thumb nail, from retraction of soft parts, which is now tolerably repaired by the granulating process.

The circumstance which has induced me to forward this case, is the fact of the immediate effect of the excessive dose of croton oil given on the 2d of April, or about the 9th day of the disease. This proceeding was taken on the assumed principle, that two separate and important strictures cannot be engaged in active disease at the same time, for certainly my artificial one might have been called *muco-enteritis*, in degree. I may be mistaken in supposing my case and observations of any consequence to the profession. They are submitted, however, with diffidence, in the spirit of communication, and may appear worthy of notice in THE LANCET.

St. Columb, Cornwall,

May 1st, 1834.

[*Lancet, May*, 1834.

THE INDIA.

Journal of Medical Science.

CALCUTTA ; DECEMBER 1, 1834.

The close of the first year of our labours, and of the first volume of this Journal, offers a point of pause and retrospection, that naturally suggests a few cursory remarks. The result of the experiment which we have tried, although the original venture was deemed fraught with disappointment and failure by some, has amply proved that our reliance on public support was not misplaced. There cannot in such a wide field be too many sources of laudable excitement, and our literary undertaking, we doubt not, will eventually be followed by others of a similar character. So far are we from deeming that such an effect would prove detrimental to our own periodical, that we would rather rejoice in it as one of those contemplated as likely to follow the successful result of our own experiment.

In starting the work we had no selfish purpose to gratify, unless an anxiety to be humbly instrumental in promoting scientific and beneficial enquiry be considered as such. We felt the necessity for a work of the kind, and at once set heartily about it. It is difficult to write becomingly on such a topic, as those most immediately concerned may risk the charge of egotism or omission. Nevertheless justice to all parties, demands that we should not content ourselves with a meagre or obscure hint of general success, but that we should distinctly avow, and with a deep feeling of grateful acknowledgement, that it has surpassed our expectations. We were prepared indeed to suffer some loss, but as yet we have been exposed to none, and should (as we cannot permit ourselves to doubt,) the experience of the opening year resemble that of the closing one, we have none to fear.

It is a source of great gratification to us that our work has so far prospered from the unsolicited support of talented contributors, and subscribers in every part of India. From no quarter have we derived any official patronage, if we except the circulation given to our first number by the Medical Board in certain professional circles. Other periodicals devoted to science and utility received certain facilities of circulation at some period or other from the Government. While struggling into existence, ours met with none, and even the poor favour has been denied us of being permitted to receive communications for the Journal bearing postage; solicitous as we felt to save our kind contributors an item of expence, which some of them, in these hard

times, cannot fail to feel as trenching on their limited means.

We should be much mistaken if it were supposed, that we state this in a querulous humour. Our object is far different. It is, in the first place, to indicate that we had some serious difficulties to overcome, which we trust may be accepted by our readers in an indulgent spirit, as some extenuation for the imperfections which we are unfeignedly conscious, cling, in spite of our best efforts, to the work: and in the second, to shew that even with the comparatively limited demand that exists in this country for the products of intellect, the Public after all is the best patron, and an independent exertion of ones own energies, the best guerdon for securing its support.

To our generous and talented contributors we beg again and again to tender our cordial thanks. In our time of need they came to our aid, and their essays have stamped a value upon the work which otherwise it could never expect to attain. It is most pleasant, and we trust edifying to both parties, to reflect upon the connexion thus established between us, and which we trust is fated to continue long, and to widen with the lapse of months and years, until it embrace within its enlightened circle many names that shall not pass away, or be "like the fat weed that rots on Lethe's wharf."

Not the least gratifying of the motives to perseverance which we have experienced, have arisen from the very encouraging letters which we have received from some of our distant professional brethren at the other presidencies. We value such testimonials the more, as they emanate from a perfectly impartial source, since we are personally quite unacquainted with our friendly correspondents. They have not however, contented themselves with the mere expression of their approbation, but substantially proved their good will towards our periodical by favouring us with original papers to be inserted in it. Until the Presidencies of Madras and Bombay shall, in process of time, found a medical journal of their own, we anticipate that they will prove for our periodical a rich mine of useful and scientific information.

As our subscribers include among their numbers many individuals who do not belong to the medical profession, we have felt it expedient to relieve purely technical details, by productions of a more varied character. We have satisfactory reason to know that this part of our plan has been warmly approved of, and it is our intention, with the acceptable aid of our esteemed contributors, to continue it.

One word more, and for the present we have done with what may be considered as *parish* business. Not one of the least pervading principles that have swayed us in the prosecution of our labours, has been not merely to promote the cause of philosophic and philanthropic enquiry, but to foster good feeling among the profession. How far we have acted upon this rule, we leave it to the public to decide; we now content ourselves with simply stating that cause of provocation to a contrary and less dignified course was not wanting, had we not come to a determination of not suffering such to warp our resolution of forbearance and peace.

Jungle, or bush-fighting, is perhaps the most harassing sort of service to which troops can be exposed. But *fighting* is a misplaced term, the more applicable one is the hide and seek kind of scrambling work, which the soldier has sometimes to go through against an enemy whom in his heart he despises, but seldom has the good fortune to *see*. Hardship, when there is something in prospect, but enhances the relish of existence. No matter what may be the difficulties, so long as there is hope of contending with foemen worthy of one's steel, or some spirit-stirring enterprize is in view. The case, however, is very different when the proximity of the barbarian enemy is only to be guessed at by some act of wanton outrage upon a straggler or camp-follower, or the whizzing arrow of some lurking marksman in his secret covert, wounds, or kills a brave man after a toilsome march. None but those who have experienced it, can conceive the annoyance of tracking an enemy of this kind; or being perhaps cooped up in a jungle, conscious of being surrounded by stealthy savages ready to pick up the first syce or grass-cutter who ventures beyond the pickets, or to have a hit at the Sahib, if he should perchance take a stroll with his Joe Manton in the hope of killing something wherewithal to add a relish to the short commons of the mess-dinner. Add to such a situation a heavy sick list, and the feelings of the Medical officer in charge, may be imagined

as not of a very enviable complexion. If Virtue is its own reward, it can scarcely be said that the glow of it can be enjoyed during the pressure of the exigency that exercises it.

The fluctuating anxieties that beset the Medical officer in such circumstances are of a very depressing character, for to a right thinking man, there is at all times something awful in the responsibilities he bears. So trying indeed is such a state of things that it requires great moral self-discipline and firmness to keep one's feelings in proper equilibrium, and to prevent their taking such a morbid hue as may lead to inefficiency or despair. There is a certain freshness of description about Mr. McCosh's papers, which renders them always interesting. The tale of sorrow and suicide which he has so impressively described in our present Number, is not without its moral. The person whose melancholy fate it describes, we suspect, entered the service too late in life, and had not undergone the necessary preparation by gradually acquired habits at more elastic years, for the crisis which broke down his mental energies. The case in question was evidently one of monomania. How much it is to be regretted, that we cannot always trace the commencement, or even perhaps the progress of this insidious foe to man's happiness until it be too late, and that overwhelming lust of death which is its prominent feature, has hurried the victim to a sanguinary grave.

Let me have men about me that are fat, exclaimed Julius Cæsar. The exclamation, however, was made not in his character of General but of Dictator. Shakspeare was undoubtedly a most shrewd observer of character, and he accordingly leaves his readers to infer that the illustrious Roman wished to have fat-headed people about him. We do not recollect ever having met with the phrase fat-hearted in any author. It was a current remark of the late Doctor Gregory's of Edinburgh—"I have known much disease and distress, consequent upon being fat, but never have observed any result from being lean." In many people indeed this over-tendency to fatness is undoubtedly of itself a disease, and when by its pressure it affects the movements of the heart, and the freedom of respiration, it becomes very distressing. Dr. Esdaile's case, if his mode of accounting for it be correct, curiously illustrates the fact how an accident may call forth this tendency into prominent action. Had the scirrhous diathesis prevailed in the individual, the blow most likely, instead of the former effect, would have been followed by a developement of scirrhus. Certain accidents, we have reason to think, are followed by a state of obesity. We have heard a worthy and talented professional gentleman, now no more, attribute such a state in himself to an explosion that took place in the ship on board which he was, and which blew him into the sea; he providentially suffered no other inconvenience than the ducking, the surprise, and the disagreeable feeling that follows general concussion.

The spleen has been as great a puzzle to Physiologists as the Niger sometime ago was, and the interior of New Holland still is to geographers. What can be the purport of this viscus in the animal economy? As the Author of Nature has made nothing in vain, we may rest assured that it does serve some important end, but what that may be we leave theorists to determine. Some of the obscurity that is associated with the functional history of this viscus, attaches also to its morbid states less or more, and especially so, to the rationale of their cure. Every new fact that can add to our resources on the last head, is deserving of record and patient trial. Mr. Rankin's paper has the merit of pointing out a new and apparently valuable remedial agent in spleen affections.

Can any of our readers inform us what is become of Scotus? Edinensis will observe that he does not, on the present occasion, come into collision with his brother artist. Competition on this, as on other occasions, we trust will work to a happy end, and serve to secure for our journal many such spirited sketches, as those we have already had the pleasure to submit to our readers.

The result of Mr. Stuart's case, under all the circumstances, was very fortunate, and will be borne in recollection by the Surgical reader, should he fall in with a case similarly circumstanced. The bladder would appear to have participated in the affection of the urethra, since the necessity of manual pressure over the vesical region, would indicate atony of the muscular coat of the viscus.

The change of air which Dr. Burn recommends in fever, is a remedy which will at once be acknowledged as of great efficacy in certain circumstances. People, however, are apt to differ as to the degree of change. When change of air is recommended, the idea of great distance generally associates itself with the necessity of removal. It is deserving of remark, that sometimes a change even from one street to another, or from one bungalow to another

may prove beneficial. This is more especially to be remarked in children, for the little patient that has pined away in Calcutta, may be seen to improve wonderfully by removal for a few days to Dum-Dum, Barrackpore, or over the river.

With reference to Mr. Raleigh's case of hare-lip, we regret to state that in transferring the original drawing from the stone, the execution does not do justice to the former, or represent the deformity described with sufficient accuracy. The state of the arts in Calcutta is such, that the good nature of the critic has ample scope for indulgence.

The little attention bestowed by the English upon the study of the Works of Nature, was, for a very long time as much the wonder of Foreigners, as it deservedly was of the contempt, with which they looked upon it. While other nations abundantly possessed great men, the lights of Science, England had but two. Swammerdam, Bonnet, Olivier, Geoffroy, Lyonnet, Fabricius; and many others who trod in the steps of the learned Swede flourished on the continent, during a period in which England could boast, but of Harvey, and Ray. And deep was the darkness, caused by the death of these two men, that lasted till our own day; unbroken save by the single beam of knowledge shed upon it by Hunter, in his passage through the realms of comparative anatomy, as he looked upon the structure of brutes, to learn the physiology of the structure of man.

To Harvey may justly be ascribed the merit of discovering the physiology of man through the organization of inferior animals. A knowledge beyond the age in which he lived enabled Harvey to triumph over the past, and to behold a long vista of future knowledge. In a work, not so well known as it ought to be, "concerning the generation of living creatures," the celebrated dictum "*omnia ex ovo*" was first promulgated: Nature is depicted as holding an egg in her hand from which issue all living creatures; not only those allowed by Fabricius Acquapendus; but those which he excepted, as the issues of putrefaction, the automata of the Greeks, and the whole classes of Insects and Mammalia; from the smallest creature that lives, to the Whale that bringeth forth her young alive in the waters.

This work is supposed to have given the first impulse to the experimental genius of John Hunter: a work that eclipsed as it is by the great discoverer of the circulation of the blood, himself, would have conferred immortality, upon others.

John Hunter was the worthy successor of Harvey. He caught the mantle of his master, and converted it into a vesture of glory for himself. A master mind, it is impossible to fancy the field in which John Hunter would not have been great. His discoveries opened the gates of modern science; and gave a lustre to anatomy that it never possessed before.

To what did these great men owe their fame? From what secret stores did they enrich themselves with the treasures of nature; the wonderful secret of life? Their all of honest fame was owing to Natural History. From a knowledge of the productions of nature, they were led to look with confidence, and truth to the mysteries of nature herself. Both acquired a knowledge of the various animals that were to be met with in their day; both were employed in dissecting, and examining them, and in ascertaining their relative position in nature; and, so far as their means would allow, searching into those analogies and affinities, which determine their situation in the system of animal life.

Let it be remembered too, that this study was not then free from reproach. In the days of Harvey and Ray there was no little danger, of the naturalist being confounded with the professor of the occult sciences; and punished as a necromancer, by the indignation of the people, or the stupidity of the law. While, but a few years before the discoveries of Hunter, the fashionable novelist of his day, thought proper to cast ineffable contempt upon one of the most worthy characters of his book; because he was represented as daring to value a collection of China insects, beyond one of nodding Mandarins and China teacups. But let us not be too hard upon our progenitors; even now, as then, there are not wanting shallow headed men, who can march from the Dan to the Beersheba of Science, and cry all is barren, because above their own narrow-minded comprehension; who regard with contempt the researches of the Naturalist, engaged in the dissection of a caterpillar, or perchance "counting the spots upon a butterfly's wing," because they themselves are unable to look forward to the results of the labour. As the ideot, of the Spectator, derided the bubble blowing of the Philoso-

pher, engaged in the discovery of the philosophy of light.

We have fondly lingered upon these great men, for they were long, all we had to be proud of: England seemed to be asleep, while the world of science resounded to the names of Redi, the follower of Harvey, in the refutation of the monstrous doctrine of Spontaneous Generation; and Malpighi, his co-adjutor;* Belon, the first, or near the first, of modern systematists; Gesner the inventor of the nomenclature of fishes; Swammerdam, who possessed a hand to dissect, an eye to discern, and talent to describe minutest objects. Besides these, were a host of others, followers of the great Swede, whose name, sacred to the lovers of science, needs no mention of ours: among them were Olivier and Geoffroy; Fabricius and Jussieu, followers, though antagonists, of Linnæus; and Adanson, antagonist to all; Decandolle, Clairville, and La Marck, that "blind, inspired old man;" Huber, also the blind, whose work upon the Bee, curious though it be, is less interesting in itself than in the interest it derives from the partner of his toil. Seated by his wife upon the shady bank, in "the breath of heav'n fresh blowing," the brightness of her eyes made up for the lack of lustre in his; and borrowing, in her turn, a portion of his intellectual light she looked into, and described, the government of the little kingdom before them. At such moments the husband, surely, could not have thought himself quite wretched under his loss; and beautiful, and happy, must have been the mind of the wife, who could so enable him to bear it.

These, and many others followed Science with an enthusiasm that led them to set at nought the carping cry of "cui bono?" that ever and anon assailed them; content, and wisely, to see good in the attainment of knowledge, for itself alone; that if it had none other sensible effect, had that great one upon themselves, of making them wiser and better men. But the fruit of their knowledge has extended beyond their own sphere; mankind has derived benefit in a thousand ways from their labours; and England arose, and answered the cry of "cui bono?" with the discoveries of John Hunter.

It is natural to enter into eulogium while speaking of this great man: whether we look upon his labours, or their effects upon science; upon his discoveries, or his mode of making them, it is impossible to feel less than admiration for their author. Upon the study of Natural History he entered with ardour. He was aware that it was the only path to physiological anatomy; and accordingly we find him neglecting no means of acquiring knowledge in its several branches. He writes not a letter without mentioning it: requesting this from one friend, and that from another. He asks for experiments upon the heat of animals in their natural state, from one person; and that of hybernating animals, during their period of repose, from another. To this friend he sends for a living bat; to that for a hare, a fox, or, it may be, a mouse. Now he consults Harvey and his experiments upon the "Egge of the Henne;" and then requests Jenner (a name not less immortal than his own) to watch the hatching of a cuckoo. In short, nothing was neglected. Natural History in some shape or other was ever in his mind, applied to a particular object—the health of man.

It is not, however, to be supposed that every Naturalist can have a particular and great object in view; any more than that every Surgeon is a John Hunter. But his labours are not on that account either to be neglected or contemned. Every man who puts the world in possession of a fact it knew not before, does good service to the cause of science. It is from the multitude of these facts and observations that great things are to be derived; they form the ground work of the future erection of some great mind, who comes and consults them, and assorts them; and works that, which without him would be but rubbish about the mouth of the mine, into valuable metal for the service of mankind; who, if he had to dig for that rubbish himself, would never be more than slightly benefited by his labours.

From the death of Hunter to the present day the science of Natural History has steadily pursued its course. The great work upon comparative anatomy of Sir Everard Home; founded, to say the least, upon the writings of his illustrious relative, and, perhaps mistaken, friend; soon appeared to the world, with all its elaborate research, and unrivalled pictorial design. And since then the Naturalists of our Isle have not been excelled by those of any country of the world. At present we boast of some of the greatest of the present day;

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* We are aware of, and we deny, the claims of Redi to be considered the original refuter of the doctrine of equivocal generation. After all his experiments, he appears to have been hardly convinced of the truth of his own speculations: while the "anatomical exercitations" of Harvey were published in 1653, nine years before Redi's birth.

nor can the names of Kirby and Swainson, Bennett, Vigors and MacLeay, easily be more than equalled in the annals of the past.

Yet in India what has been done in this branch of scientific research? The melancholy answer, must be—nothing. India alone of all our colonies, of all our possessions, affords the finest and most uncultivated field for the pursuit of Natural History. For near a century we have held over it unrivalled sway; and, for the purposes of science, its natural productions are still but little better known than at the time, that the greatest of ancient conquerors complied with the request of the most learned among the Greeks: they seem, in fact, to have been almost as familiar to and, as well understood by Aristotle and his Pupils, as by the naturalists of the present day. France held but a precarious possession of Egypt for a few months, yet produced the magnificent work of Denon upon her antiquities, her manners, her statistics, her natural productions: England has brought forth a few miserable essays upon the Gods of these Gentiles, in more than double the number of years.

It may perhaps be objected to this sweeping conclusion that something has been done in Botany. We admit it. In Botany something has been done, besides the labours of Roxburgh. We recollect too, Hamilton's Fishes of the Ganges, Russell's Indian Serpents, and other contributions to Zoology by Hardwicke, Hodgson and Sykes. But, while we remember these, our regret for the past is at least equal to our hope for the future.

A few words more, and we have done. We are anxious that our brethren, among the first in every other branch of Medical Science, should not be the last in this. They have time, place, opportunity for distinction; and, therefore, if not distinguished, the fault will be their own. We have dwelt at some length upon the important discoveries effected in human anatomy through the anatomy of inferior animals, by Harvey and Hunter; and if we look at the great names in our profession, both of the present and of the past, we shall find that not one has been distinguished as a discoverer in physiology, who was not conversant with the same path to the science. Physiology is the child of comparative anatomy.

MEDICAL INTELLIGENCE.

General Orders relating to the Medical Service.

By the Vice President in Council.

October 20th.—Mr. W. B. O'Shaughnessy, Officiating Assistant Surgeon of the Civil Station of Cuttack, till the 1st proximo, on private affairs.

23d.—Assistant Surgeon Gavin Turnbull, attached to the Civil Station of Jaunpore, obtained in the Judicial and Revenue Department, under date the 13th instant, leave of absence for two months, to visit the Presidency, preparatory to applying for permission to proceed to Europe on Furlough.

The appointment of Assistant Surgeon Allan Gilmore, M. D., in General Orders No. 173, of the 13th ultimo, to Officiate in Medical charge of the Civil Station of Shahabad, is cancelled at the request of that Officer.

Apothecary James Dick, of the Subordinate Medical Department, having been declared unfit for the situation, is discharged from the service, and his Warrant accordingly cancelled.

No. 199 of 1834.—Pursuant to instructions received from the Hon'ble the Court of Directors, the appointment of Surgeon William Pitt Muston to be a Superintending Surgeon, is cancelled from this day, and Mr. Muston is appointed a Presidency Surgeon from the same date.—Mr. Muston is to be considered a Supernumerary Presidency Surgeon until the occurrence of a vacancy, when he will be brought on the Authorized Establishment.

27th.—The following Officer has obtained leave of absence from his Station:

Mr. T. Chapman, Assistant Surgeon, attached to the Civil Station of Purneeah, for two months, for the benefit of his health.

Dr. John Jackson, Civil Surgeon, stationed at Ghazipore, is appointed to Officiate as Opium Examiner to the Benares Agency in the room of Dr. Butter, until further Orders.

30th.—Assistant Surgeon Allan Gilmore, M. D., is re-appointed to Officiate in Medical Charge of the Civil Station of Shahabad.

Assistant Surgeon W. B. O'Shaughnessy, Officiating in Medical charge of the Civil Station of Cuttack, has obtained, in the Judicial and Revenue Department, under date the 20th instant, leave of absence till the 1st proximo, on private affairs.

No. 202 of 1834.—The following Extracts of a Letter from the Honorable the Court of

Directors, in the Military Department, are published for general information :

Letter No. 2, *dated* 21*st May*, 1834.

" Para. 2. The undermentioned Officers, belonging to your Establishment, have been granted an extension of their respective Furloughs, for the space of six months :

Assistant Surgeon Webster.

Surgeon J. Watson.

3. We have permitted Surgeon Thomas Child, late of your Establishment, to retire from the Company's Service. His retirement takes effect from the 6th May 1833."

November 3d.—The following Officer has obtained leave of absence from his Station :

Mr. J. Wilkie, Assistant Surgeon, attached to the Civil Station of Dinagepore, for one month, on Medical Certificate.

6th.—No. 204 of 1834.—The Honorable the Vice President in Council is pleased to make the following Promotions and Alterations of Rank :

Medical Department.—Assistant Surgeon Andrew Simson, M. D., to be Surgeon, vice Surgeon T. S. Child retired, with rank from the 16th September, 1834, vice Surgeon J. Nicoll deceased.

Assistant Surgeon Robert Bransby Francis (deceased), to be Surgeon, from the 20th September, 1833, vice Surgeon G. Waddell, M. D., deceased.

Surgeon W. Glass, M. D, retired, to rank from 6th May 1833, vice Surgeon T. S. Child retired.

Surgeon C. Mackinnon, ditto 23d July 1833, vice Surgeon J. Browne deceased.

Surgeon B. Burt, M. D., ditto 5th August 1833, vice Surgeon J. Savage retired.

Surgeon J. Dalrymple, ditto 28th August 1833, vice Surgeon W. Glass, M. D., retired.

Surgeon D. Butter, M. D., ditto 7th October 1833, vice Surgeon R. B. Francis deceased.

Surgeon J. Duncan, ditto 28th January 1834, vice Surgeon H. H. Wilson retired.

Surgeon W. E. Carte, A. B., ditto 1st February 1834, vice Surgeon C. Robinson retired.

Surgeon E. T. Harpur, ditto 25th February 1834, vice Surgeon J. McDowell retired.

No. 205 of 1834.—The Vice President in Council is pleased to make the following Promotions and Appointments :

Medical Department. — Superintending Surgeon George Skipton to be 3d Member of the Medical Board, from the 23d October 1834, in succession to J. McDowell retired.

Surgeon Henry Francis Hough to be a Superintending Surgeon on the Establishment, from the 23d October 1834, vice G. Skipton promoted.

Surgeon William Findon to be a Superintending Surgeon on the Establishment, from the 23d October 1834, vice W. P. Muston whose appointment is cancelled.

Assistant Surgeon Henry Taylor is appointed to officiate in Medical Charge of the Civil Station of Guyah.

Assistant Surgeon W. B. O'Shaughnessy, M. D., Officiating in Medical Charge of the Civil Station of Cuttack, is, at his own request, placed at the disposal of the Major General in Command of the Forces.

Assistant Surgeon John Jackson, attached to the Civil Station of Ghazeepore, has been appointed in the General Department, under date the 27th ultimo, to Officiate as Opium Examiner to the Benares Agency, in the room of Dr. Butter, until further orders.

Assistant Surgeon Thomas Chapman, M. D., attached to the Civil Station of Purneah, has obtained leave of absence in the Judicial and Revenue Department, under date the 27th ultimo, for two months, for the benefit of his health.

Assistant Apothecary John Williams to be Apothecary, from the 23d October 1834, and Hospital Apprentice William Togman to be Assistant Apothecary, in succession to Apothecary James Dick discharged from the Service.

By the Major General Commanding the Forces.

October 18th.—The Dinapore Division Order by Brigadier General W. Richards, C. B., under date the 7th instant, directing Assistant Surgeon A. Drummond, doing duty with the European Regiment, to proceed to Hazareebaugh, and to afford Medical aid to the Detachment of Troops and Public Establishments at that Post, is confirmed.

The undermentioned Officer has leave of absence :

47th Regiment Native Infantry—Surgeon J. Duncan, from 15th October to 15th November, in extension, on Medical Certificate, and to enable him to join his Regiment.

21st.—The Benares Division Order of the 4th instant, appointing Assistant Surgeon G. Turnbull, attached to the Civil Station of Juanpore, (with the concurrence of the Chief Civil authority there,) to afford Medical aid to the Left Wing of the 6th Regiment Native Infantry, on the departure of Assistant Surgeon A. Colquhoun, is confirmed.

The Saugor Division Orders of the 30th ultimo, appointing Assistant Surgeon R. Foley, M. D., of the 2d Local Horse, to afford Medical aid, from the 1st October, to the Jail and Civil Establishments at

Saugor, vice Assistant Surgeon J. V. Leese, of the 4th Native Infantry, who has been relieved from that duty, consequent on the approaching march of his Regiment.

22d.—Appointing Apotheeary J. Douglas, doing duty with the 2d Brigade Horse Artillery, to the 2d Company 3d Battalion of Artillery proceeding to Agra, (there being no Medical Offieer available for the eharge,) and Assistant Steward J. Hennessy, supernumerary, to the 3d Battalion of Artillery.

On the departure of Apothecary Douglas, Steward H. Leach, of the 2d Brigade Horse Artillery, to aet as Apothecary to the Brigade, until the arrival of Apotheeary D. McDonald from leave of absenee.

23d.—The undermentioned Officer has leave of absence:

50th Regiment Native Infantry—Surgeon W. Dyer, from 20th November to 20th January, 1835, to remain at the Presidency, for the purpose of applying for Furlough.

24th.—The Cawnpore Division Order of the 13th instant, appointing Veterinary Surgeon D. Cullimore, of the 2d Brigade Horse Artillery, to the charge of the Horses of the 8th Regiment Light Cavalry, in eonsequence of the departure of Veterinary Surgeon J. Harris, of the 6th Regiment Light Cavalry, by whom that charge was held, is eonfirmed.

Appointing Assistant Surgeon M. McN. Rind, doing duty with the 65th Regiment Native Infantry, to afford Medical aid to the Europeans left in Hospital on the march of the Division; and direeting Hospital Apprentiee Frederiek William Mann to continue at Mhow, and do duty under the orders of Assistant Surgeon Rind.

Assistant Surgeon R. Christie is directed to proeeed to Tirhoot, and to aet as Civil Surgeon at that Station, during the absence on leave of Assistant Surgeon K. Maekinnon, M. D., or until further orders.

Assistant Surgeon A. Colquhoun, to whom this duty was assigned in General Orders of the 29th ultimo, is re-appointed to Juanpore, and directed, under instructions from Government, to aet as Civil Surgeon at that Station, during the absenee of Assistant Surgeon Turnbull, or until further orders.

25th.—The following Agra Garrison and Station Orders by Colonel R. H. Sale, C. B., under dates the 16th September and 4th Oetober, are eonfirmed:

16*th September*.—Direeting Assistant Surgeon J. Morice to proeeed in Medieal eharge of the detaehed Wing of the 9th Native Infantry, and Assistant Surgeon C. McCurdy to afford Medieal aid to the Wing of that Regiment, remaining in Cantonments, in addition to his duties with His Majesty's 13th Light Infantry.

4*th October*.—Direeting Surgeon K. Macqueen, of the 71st, to afford Medieal aid to the Right Wing of the 28th Regiment Native Infantry.

27th.—The undermentioned Offieers have leave of absence:

1st Regiment Native Infantry—Surgeon J. S. Toke, from 17th November to 30th November, in extension, to enable him to rejoin his Regiment at Futtehgurh.

1st Brigade Horse Artillery—Veterinary Surgeon G. Griffith, from 1st December to 1st April 1835, to visit the Presideney, on Medical Certificate, preparatory to applying for leave to Sea.

30th.—The Agra Garrison and Station Order by Colonel R. H. Sale, C. B., under date the 8th instant, direeting Assistant Surgeon A. Keir, M. D., to proeeed in Medieal charge of the Detaehment of Sappers and Miners and the Right Wing of the 28th Regiment Native Infantry, proeeeding towards Ajmere under the Command of Major C. D. Wilkinson, is eonfirmed.

November 4th.—The Major General in Command of the Forees is pleased to make the following removals and postings of Medical Officers:

Surgeon J. Allan, (on Furlough) from the 69th to the 29th Regiment Native Infantry.

Surgeon K. Maequeen, from the 71st to the 69th Regiment Native Infantry.

Surgeon C. Maekinnon, from the 15th to the 32d Regiment Native Infantry. Surgeon Mackinnon will proceed to Allygurh and afford Medieal aid to the Right Wing of the 45th Native Infantry, until the arrival at that Station of the 32d Regiment.

Surgeon A. Scott, (on Furlough) from the 7th to the 31st Regiment Native Infantry.

Surgeon W. Darby, from the 30th to the 7th Regiment Native Infantry. Surgeon Darby will eontinue in Medical eharge of the 30th Native Infantry at Almorah, until the arrival at that Station of the 7th Regiment.

Surgeon J. Watson, M. D., (on Furlough) from the 67th to the 70th Regiment Native Infantry.

Surgeon J. Johnstone, M. D., from the 64th to the 67th Regiment Native Infantry. Surgeon Johnstone will continue in Medieal eharge of the 64th Native Infantry, till relieved by Assistant Surgeon Diekson.

Surgeon A. Murray, M. D., from the 49th to the 55th Regiment Native Infantry.

Surgeon J. J. Paterson, from the 55th to the 41st Regiment Native Infantry. Surgeon Paterson will continue in Medical charge of the 55th Regiment, until further orders.

Surgeon H. Guthrie, M. D., from the 41st to the 65th Regiment Native Infantry. Surgeon Guthrie will continue at Pertaub-

gurh and afford Medical aid to the Troops at that Post, until they are relieved by the 72d Native Infantry, when he will proceed to Allahabad and await the arrival of the 65th Regiment.

Surgeon J. Henderson, from the 65th to the 49th Regiment Native Infantry.

Surgeon I. Jackson, from the 68th to the 17th Regiment Native Infantry.

Assistant Surgeon J. S. Sullivan, (on Furlough) from the 39th to the 33d Regiment Native Infantry.

Assistant Surgeon J. Greig, from the 32d to the 39th Regiment Native Infantry. Assistant Surgeon Greig will continue with the 32d Native Infantry, until his services can be dispensed with.

Assistant Surgeon H. Donaldson, M. D., (on Furlough) from the 15th to the 47th Regiment Native Infantry.

Assistant Surgeon S. Lightfoot, from the 69th to the 15th Regiment Native Infantry.

Assistant Surgeon F. Hartt, (on Furlough) from the 55th to the 43d Regiment Native Infantry.

Assistant Surgeon H. Chapman, lately attached to the Convalescent Depôt at Cherra Poonjee, to the 55th Regiment Native Infantry.

Assistant Surgeon A. McK. Clark, (on Furlough) to the 73d Regiment Native Infantry.

Assistant Surgeon R. Shaw, (on Furlough) to the 1st Regiment Native Infantry.

Assistant Surgeon J. B. Dickson, from the 67th to the 64th Regiment Native Infantry.

Assistant Surgeon H. H. Spry (on Furlough) to the 74th Regiment Native Infantry, vice Hardie deceased.

Assistant Surgeon A. Henderson, of the 41st Regiment, is directed to join and do duty with the 55th Regiment Native Infantry at Barrackpore.

5th.—The Benares Division Order of the 24th ultimo, appointing Assistant Surgeon D. Campbell, attached to the Civil Station of Mirzapore, to afford Medical aid to the Left Wing of the 66th Regiment Native Infantry, so long as it may remain at that Post, or until further orders, is confirmed.

7th.—The following Division Orders by Brigadier General W. Richards, C. B., Commanding the Dinapore Division, dated the 26th ultimo, are confirmed:

Appointing Surgeon O. Wray, of the European Regiment, to the Medical charge of the Staff, from the 27th ultimo, in the room of Surgeon J. Johnstone, M. D., of the 64th Regiment Native Infantry, about to proceed with his Corps to Saugor.

8th.—The Agra Garrison and Station Orders by Colonel R. H. Sale, C. B., under date the 21st ultimo, appointing Assistant Surgeon C. McCurdy to the Medical charge of the Detachment of Artillery under the Command of Captain O. Baker, and to afford Medical aid to the Women, Children and Sick of the 5th Battalion remaining in Cantonments, in addition to his duties with His Majesty's 13th Light Infantry; and appointing Surgeon K. Macqueen, of the 71st, to the Medical charge of the Left Wing 44th Regiment Native Infantry, are confirmed as temporary arrangements.

Assistant Surgeon C. J. Davidson is appointed to the Medical charge of the Detachment, and the following Subordinate Medical attendants are directed to do duty with it:

Assistant Apothecary J. H. Peter and Hospital Apprentices M. R. Crawford and R. Norris.

Apprentice Crawford is appointed to act as Assistant Steward to the Detachment.

Assistant Surgeon K. M. Scott, now at the General Hospital, is under instructions from Government, directed to proceed to Purneah, and perform the Civil Medical duties at that Station, during the absence, on Medical Certificate, of Assistant Surgeon T. Chapman, M. D., or until further orders.

10th.—Superintending Surgeon J. Marshall is removed from the Saugor to the Dinapore Circle of Medical Superintendence.

Superintending Surgeon H. F. Hough (new promotion) is posted to the Saugor Circle of Medical Superintendence.

Superintending Surgeon W. Findon (new promotion) is posted to the Berhampore Circle of Medical Superintendence.

The undermentioned Officer has leave of absence:

8th Regiment Light Cavalry—Assistant Surgeon J. Davenport, M. D., (Officiating Medical Store-keeper, Cawnpore,) from 20th November to 20th February 1835, to visit the Presidency, on Medical Certificate, preparatory to submitting an application for permission to proceed to Europe on Furlough.

TO CORRESPONDENTS.

The following communications shall appear as soon as possible.

Native mode of treating Hemorrhoids.—On Native Medical Education, by J. Tytler, Esq.—Iodyne in Glandular Swellings, by A. Campbell, Esq.—On Calculus Diseases, by J. McRae, Esq.—Post Mortem Conversations.—Kirkmichael on the Glasgow Professors.—Case of Ruptured Veins, by Dr. T. A. Wise, —Amputations in the Guicwar's Territories, by P. Steuart, Esq. Case of "MORRISONIANA," by R.

Three Drawings, and two boxes of Cystic and Renal Calculi have been received from Dr. Finch, the cases will be very acceptable.

Dr. McClelland's note has reached us; but not so the paper to which he refers.

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